

**AGENDA
IRVINE RANCH WATER DISTRICT
BOARD OF DIRECTORS
REGULAR MEETING**

September 23, 2013

PLEDGE OF ALLEGIANCE

CALL TO ORDER

5:00 P.M., Board Room, District Office
15600 Sand Canyon Avenue, Irvine, California

ROLL CALL

Directors Matheis, LaMar, Swan, Withers and President Reinhart

NOTICE

If you wish to address the Board on any item, including Consent Calendar items, please file your name with the Secretary. Forms are provided on the lobby table. Remarks are limited to five minutes per speaker on each subject. Consent Calendar items will be acted upon by one motion, without discussion, unless a request is made for specific items to be removed from the Calendar for separate action.

COMMUNICATIONS TO THE BOARD

1. A. Written:

B. Oral: Mrs. Joan Irvine Smith relative to the Dyer Road Wellfield.

2. ITEMS RECEIVED TOO LATE TO BE AGENDIZED

Recommendation: Determine that the need to discuss and/or take immediate action on item(s) introduced come to the attention of the District subsequent to the agenda being posted.

WORKSHOPS

3. BAKER WATER TREATMENT PLANT UPDATE

Recommendation: Receive and file.

4. LONG-TERM FINANCING PLAN CONSOLIDATION OF IMPROVEMENT DISTRICTS – PLAN OF WORKS

Recommendation: Receive and file.

CONSENT CALENDAR

Resolution No. 2013-34

Items 5-12

5. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the September 9, 2013 Regular Board meeting be approved as presented.

| CONSENT CALENDAR – Continued | Items 5-12 |
|---|-------------------|
| <p>6. <u>RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS</u></p> <p>Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Peer Swan, Douglas Reinhart, and John Withers.</p> | |
| <p>7. <u>STRATEGIC MEASURES DASHBOARD</u></p> <p>Recommendation: That the Board receive and file the Strategic Measures Dashboard and information items.</p> | |
| <p>8. <u>AUGUST 2013 TREASURY REPORTS</u></p> <p>Recommendation: That the Board receive and file the Treasurer's Investment Summary Report, the Monthly Interest Rate Swap Summary for August 2013, and Disclosure Report of Reimbursements to Board members and staff; approve the August 2013 Summary of Payroll ACH payments in the total amount of \$1,457,706 and approve the August 2013 accounts payable Disbursement Summary of warrants 341266 through 342225, Workers' Compensation distributions, wire transfers, payroll withholding distributions and voided checks in the total amount of \$13,773,716.</p> | |
| <p>9. <u>MICHELSON WATER RECYCLING PLANT ELECTRICAL VAULT MH-E6B REPLACEMENT FINAL ACCEPTANCE</u></p> <p>Recommendation: That the Board accept construction of the Michelson Water Recycling Plant Electrical Vault Replacement MH-E6B, project 20214 (1599); authorize the General Manager to file a Notice of Completion; and authorize the release of the retention 35 days after the date of recording the Notice of Completion.</p> | |
| <p>10. <u>QUITCLAIM OF REAL PROPERTY, IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC, WATER AND SEWER PIPELINE EASEMENTS PER TRACT NO. 17004 AND INST. 2008000276110, O.R., ORCHARD HILLS</u></p> <p>Recommendation: That the Board adopt a resolution approving the Quitclaim Deed to Irvine Community Development Company, LLC.</p> | Reso. No. 2013- |
| <p>11. <u>QUITCLAIM OF REAL PROPERTY, IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC, WATER AND SEWER PIPELINE EASEMENTS PER TRACT NO. 17420, CYPRUS VILLAGE</u></p> <p>Recommendation: That the Board adopt a resolution approving the Quitclaim Deed to Irvine Community Development Company, LLC.</p> | Reso. No. 2013- |

CONSENT CALENDAR – Continued

Items 5-12

12. QUITCLAIM OF REAL PROPERTY, SHEA BAKER RANCH ASSOCIATES, LLC. WATER AND SEWER PIPELINE EASEMENT PER INST. 93-0527509, O.R., BAKER RANCH

Recommendation: That the Board adopt a resolution approving the Quitclaim Deed to Shea/Baker Ranch Associates, LLC.

Reso. No. 2013-

ACTION CALENDAR

13. 2014 MEDICAL INSURANCE COVERAGE RENEWAL

Recommendation: That the Board authorize the continuance of the District's health care coverage with CalPERS for calendar year 2014 with changes in employee and District contribution levels as recommended in Table A.

14. DYER ROAD WELLFIELD WELL NO. 2 REHABILITATION CONSTRUCTION AWARD

Recommendation: That the Board authorize a budget increase in the amount of \$70,600, from \$706,000 to \$776,600, for project 11693 (4326); approve an Expenditure Authorization in the amount of \$344,500 for project 11693 (4326); and authorize the General Manager to execute a construction contract with Best Drilling & Pump, Inc. in the amount of \$249,545 for the Rehabilitation of Dyer Road Wellfield Well No. 2, project 11693 (4326).

15. SAN JOAQUIN MARSH CAMPUS MOLD REMEDIATION EXPENDITURE AUTHORIZATION

Recommendation: That the Board approve an Expenditure Authorization in the amount of \$269,800 for the San Joaquin Marsh Building Campus Mold Remediation, project 11665 (4130).

16. MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS VARIANCES

Recommendation: That the Board authorize the General Manager to execute Variance No. 5 in the amount of \$770,800 with HDR Engineering, Inc. for supplemental construction phase services for testing, start-up, and road design for the MWRP Phase 2 Expansion, projects 20214 (1599) and 30214 (1706), and flood protection improvements, projects 20542 (1150) and 30542 (1118); and authorize the General Manager to execute Variance No. 7 in the amount of \$247,073 with Delta Systems Engineering for supplemental phase services associated with testing, start-up, and troubleshooting for the MWRP Phase 2 Expansion, projects 20214 (1599) and 30214 (1706).

ACTION CALENDAR - Continued

17. **PORTOLA ZONE 9 AND MANNING BOOSTER PUMP STATION
GENERATOR PROJECT CONSTRUCTION AWARD**

Recommendation: That the Board authorize an increase to the FY 2013-14 Capital Budget in the amount of \$154,000, from \$293,700 to \$447,700, for the Portola Zone 9 Booster Pump Station Generator Project; authorize an increase to the FY 2013-14 Capital Budget in the amount of \$5,500, from \$311,300 to \$316,800, for the Manning Booster Pump Station Generator Project; approve Expenditure Authorizations in the amounts of \$379,500 and \$316,800 for projects 11667 (4146) and 11675 (4277), respectively; and authorize the General Manager to execute a construction contract with Paulus Engineering, Inc. in the amount of \$518,353 for the Portola Zone 9 and Manning Booster Pump Station Generator, projects 11667 (4146) and 11675 (4277).

18. **INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE
REPLACEMENT CONSTRUCTION AWARD**

Recommendation: That the Board authorize an increase to the FY 2013-14 Capital Budget in the amount of \$303,500, from \$1,117,300 to \$1,420,800, for project 11669 (4285); approve an Expenditure Authorization in the amount of \$1,185,500 for project 11669 (4285); and authorize the General Manager to execute a construction contract with GCI Construction, Inc. in the amount of \$1,073,250 for the Initial Disinfection Facility Chlorine Injection Line Replacement, Project 11669 (4285).

OTHER BUSINESS

Pursuant to Government Code Section 54954.2, members of the Board of Directors or staff may ask questions for clarification, make brief announcements, make brief reports on his/her own activities. The Board or a Board member may provide a reference to staff or other resources for factual information, request staff to report back at a subsequent meeting concerning any matter, or direct staff to place a matter of business on a future agenda. Such matters may be brought up under the General Manager's Report or Directors' Comments.

19. A. General Manager's Report

B. Directors' Comments

OTHER BUSINESS - Continued

19. C. Closed Session:


- 1) Conference with legal counsel relative to existing litigation - Government Code Section 54956.9(d)(1) – Successor Agency to the Tustin Community Redevelopment Agency, et al vs. Ana Matosantos in her capacity as Director of State of California Department of Finance, et al., and
- 2) Conference with legal counsel relative to anticipated litigation - Government Code Section 54956.9(d)(2) - significant exposure to litigation (one potential case).

D. Adjourn.

* * * * *

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the Irvine Ranch Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection in the District's office, 15600 Sand Canyon Avenue, Irvine, California ("District Office"). If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available from the District Secretary of the District Office at the same time as they are distributed to Board Members, except that if such writings are distributed one hour prior to, or during, the meeting, they will be available at the entrance to the Board of Directors Room of the District Office.

The Irvine Ranch Water District Board Room is wheelchair accessible. If you require any special disability-related accommodations (e.g., access to an amplified sound system, etc.), please contact the District Secretary at (949) 453-5300 during business hours at least seventy-two (72) hours prior to the scheduled meeting. This agenda can be obtained in alternative format upon written request to the District Secretary at least seventy-two (72) hours prior to the scheduled meeting.

September 23, 2013
Prepared by: R. Mori
Submitted by: K. Burton
Approved by: Paul Cook 

WORKSHOP

BAKER WATER TREATMENT PLANT UPDATE

SUMMARY:

The final design of the Baker Water Treatment Plant project is complete, and the project is currently out to bid. In coordination with staff from each of the participating agencies, IRWD staff is providing a presentation to each participating agency at its respective Board of Directors or Committee meeting in September. The presentation includes project background, project overview, cost evolution, cost projections, ongoing activities and the project schedule. Staff will provide the same presentation at this evening's Board meeting.

BACKGROUND:

The Baker WTP is a regional project that will produce up to 43.5 cfs (28 mgd) of drinking water and will be capable of treating untreated water imported from the Metropolitan Water District of Southern California and local water from Irvine Lake. Project participants include El Toro Water District (ETWD), IRWD, Moulton Niguel Water District (MNWD), Santa Margarita Water District (SMWD), and Trabuco Canyon Water District (TCWD). The Baker WTP will utilize microfiltration and ultraviolet disinfection as the primary treatment processes. It will provide an operational source of supply and, in the event of a short-term water shortage emergency, will supply regional water reliability to the project participants.

With the final design complete and the project out to bid, staff has been providing a presentation at each of the participant's Board of Directors or Engineering and Operations Committee meeting. To date, this presentation has been provided to SMWD, MNWD, and TCWD. The feedback received by the member of the IRWD Engineering and Operations Committee in attendance at the presentation along with staff has been very positive. The informational presentation is scheduled to be made to ETWD on September 24 at its Engineering Committee Meeting. Staff will provide the presentation, which is attached as Exhibit "A", for information and discussion purposes at this evening's Board meeting.

FISCAL IMPACTS:

Not applicable.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

RECOMMENDATION:

RECEIVE AND FILE.


LIST OF EXHIBITS:

Exhibit "A" – Baker Water Treatment Plant Presentation

Baker Water Treatment Plant

Irvine Ranch Water District
Board of Directors Meeting

September 23, 2013



The slide features a blue header with the title "Baker Water Treatment Plant" in white. Below the header, the text "Irvine Ranch Water District Board of Directors Meeting" and "September 23, 2013" is centered. At the bottom, there is a row of six logos: El Toro Water District (a blue circle with a white wave), Irvine Ranch Water District (a blue square with a white building), Moulton Niguel Water (three blue arches), City of Orange (a blue square with a white building), a tree logo (a green tree on a brown base), and Municipal Water District of Orange County (a blue square with a white building and a red apple).

Agenda

THE BAKER PROJECT

- Background
- Project Overview
- Cost Evolution – Feasibility through Final Design
- Cost Projections
- Ongoing Activities
- Project Schedule
- Questions

2

The slide has a blue header with the word "Agenda" in white. Below the header, the text "THE BAKER PROJECT" is centered. A horizontal line separates the header from the agenda items. The agenda items are listed in a bulleted format. In the bottom left corner, there is a small blue circle containing the number "2".

Background

Project Objectives:

THE BAKER PROJECT

- Improve potable water supply reliability for southern Orange County by constructing a local regional water treatment facility.
- Collaborate with multiple retail water agencies to optimize treatment capacity and conveyance.
- Design facility to treat raw water from three sources, blended or as individual sources.
- Utilize modern treatment technology to produce water that meets standards *stricter* than current regulatory requirements.
- Minimize waste by operating the plant at greater than 99% recovery efficiency.



South OC Regional Imported Water Distribution System

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Multi-Agency Project

Capacity Subscriptions Vary by Agency

THE BAKER PROJECT

| Agency | Capacity, cfs (MGD) | Capacity Percentage* |
|--------------|---------------------|----------------------|
| ETWD | 5.0 (3.2) | 11.5% |
| IRWD | 10.5 (6.8) | 24.1% |
| MNWD | 13.0 (8.4) | 29.9% |
| SMWD | 13.0 (8.4) | 29.9% |
| TCWD | 2.0 (1.3) | 4.6% |
| TOTAL | 43.5 (28.1) | 100.0% |

*Percentage of Baker product water delivered to each agency

4



Multi-Agency Collaboration

Baker Project Committee:

THE BAKER PROJECT

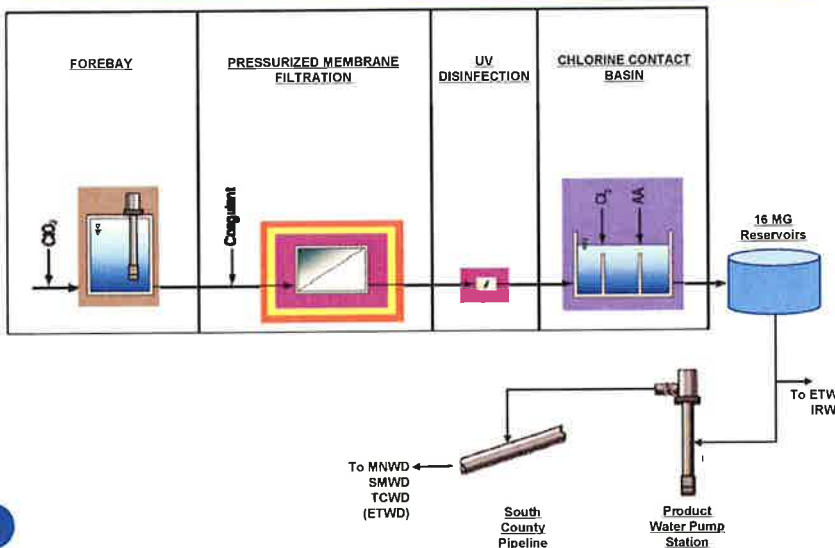
- Project Committee consists of key staff from each agency.
 - ETWD – Dennis Cafferty
 - IRWD – Kevin Burton, Rich Mori
 - MNWD – Matt Collings
 - SMWD – Dan Ferons, Jaime Aguilar
 - TCWD – Hector Ruiz
- Consistent multi-agency involvement throughout the planning and design phases that will continue through the construction and facility operation.
- Monthly coordination meetings held since the onset of the project.
- Multi-agency collaboration and consensus have been the cornerstone of the project.



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Advanced Treatment Process

THE BAKER PROJECT



6

Project Site at Construction Completion

THE BAKER PROJECT



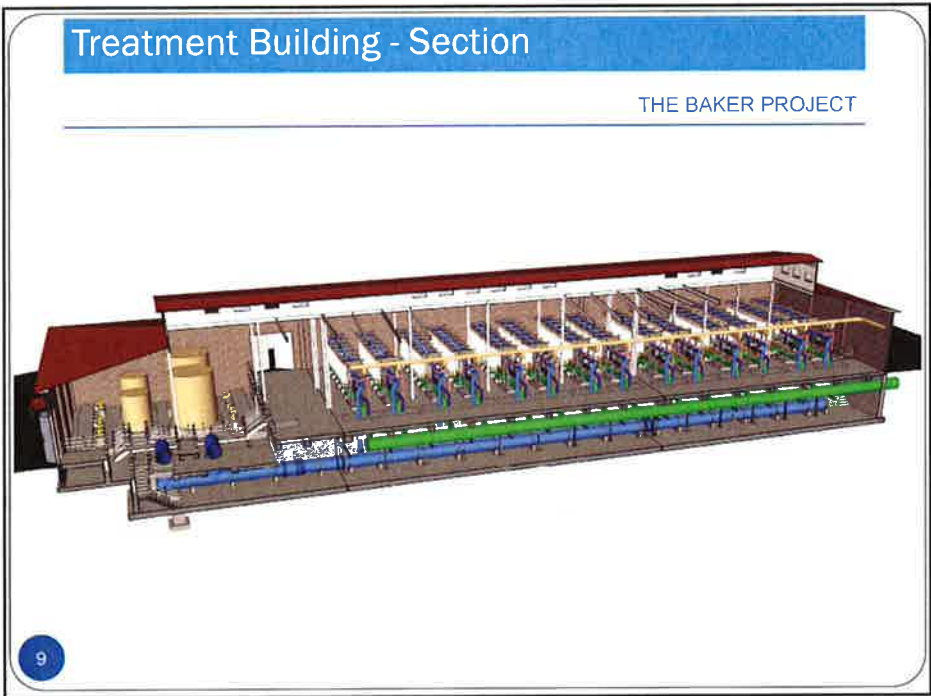
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Architecture Consistent with Community

THE BAKER PROJECT



8



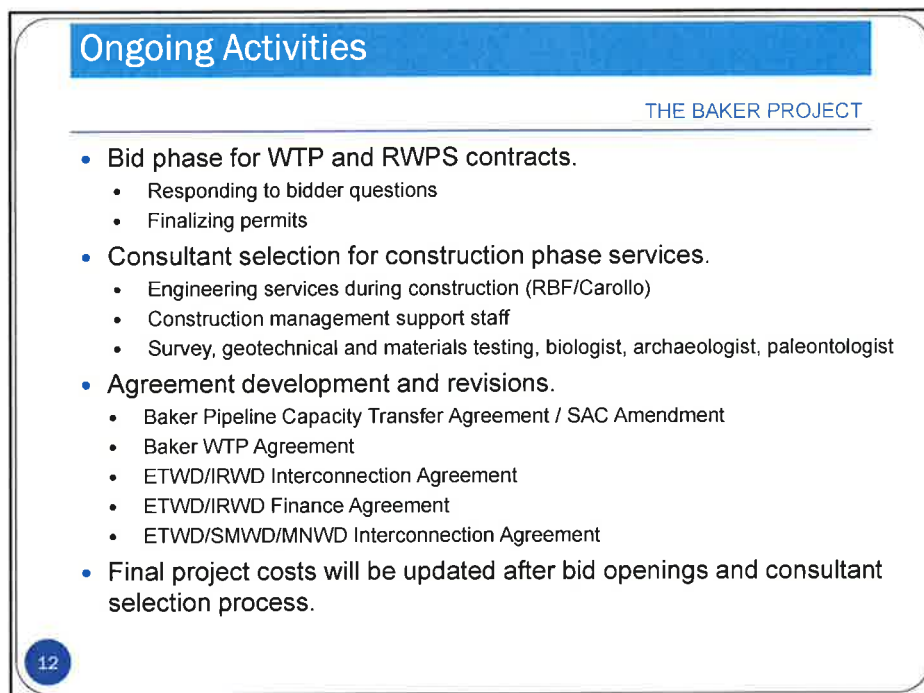
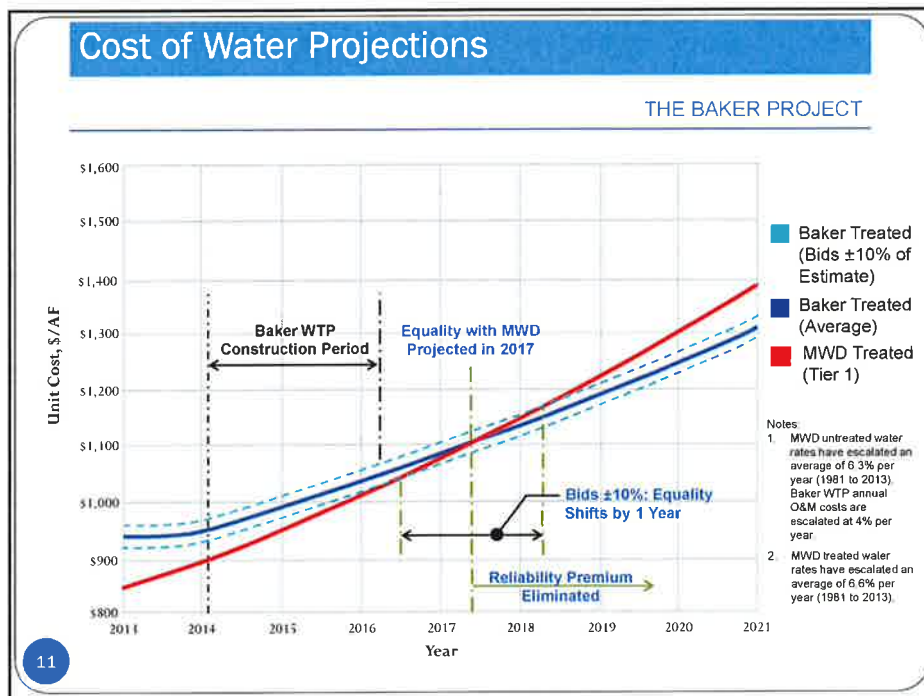
Cost Evolution Summary

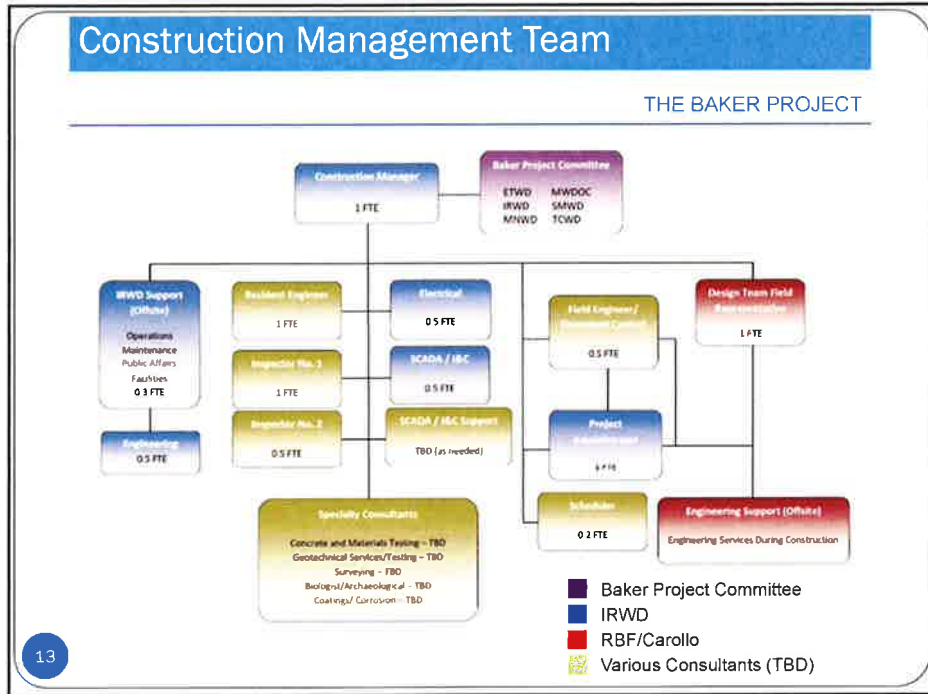
THE BAKER PROJECT

| Project Milestone | Total Capital Cost, \$ | MWD Untreated Water Cost, \$/AF | Average Baker Treatment Cost, \$/AF | Average Baker Treated Water Cost, \$/AF | MWD Treated Water Cost, \$/AF | Reliability Premium, % |
|---|------------------------|---------------------------------|-------------------------------------|---|-------------------------------|------------------------|
| <u>Feasibility Study (2007)</u> | \$47.8 M | \$341 | \$220 | \$561 | \$488 | 15% |
| <u>Preliminary Design Report (2010)</u> | \$61.5 M | \$502 | \$281 | \$783 | \$712 | 10% |
| <u>90% Design (2012)</u> | \$78.5 M | \$573 | \$325 | \$898 | \$807 | 11% |
| <u>Final Design (2013)</u> | \$89.6 M | \$593 | \$347 | \$940 | \$847 | 11% |

- Cost estimates represent the average unit cost of Baker treated water. Actual unit costs by agency will vary based on each agency's specific delivery requirements and funding sources.
- Baker treated water costs have tracked consistently with MWD treated water costs.
- 66% of the Baker treated water cost increase is a result of increased untreated water costs and 34% of the increase is a result of project changes.
- The Reliability Premium has improved.

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Project Schedule

THE BAKER PROJECT

Upcoming Milestones

| | |
|-------------------------------|--------------------------------|
| WTP Bid Opening | September 26, 2013 |
| RWPS Bid Opening | October 1, 2013 |
| Final Project Costs Available | October 8, 2013 |
| Participant Approval Period | October 8 to November 27, 2013 |
| Construction Award | December 16, 2013 |
| Construction NTP Issued | February 2014 |
| RWPS Construction Complete | March 2015 |
| WTP Construction Complete | March 2016 |

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Moving Forward

THE BAKER PROJECT

- Landmark project that will provide needed reliability to South Orange County.
 - Provides a local, reliable treated water supply that minimizes water supply impacts during planned and unplanned outages of the Diemer WTP, AMP, Lower Feeder, and Santiago Lateral.
 - Provides advanced treatment processes capable of treating Colorado River Water, State Water Project Water, and Irvine Lake Water independently and as various blends.
 - Provides a consistent, high quality source of treated water.
- Prime example of multi-agency collaboration.
- Eagerly awaiting start of construction.

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THE BAKER PROJECT

IRWD Contact Information


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September 23, 2013
Prepared by: Christopher Smithson
Submitted by: Cheryl Clary
Approved by: Paul Cook 

WORKSHOP

LONG-TERM FINANCING PLAN CONSOLIDATION OF IMPROVEMENT DISTRICTS – PLAN OF WORKS

SUMMARY:

In early 2011, IRWD undertook a process to review and, if appropriate, develop modifications to the District's current capital funding plan. The focus of the review has been to identify issues with the District's existing capital funding plan and to consider adjustments that would improve and update the plan as the District approaches build-out, when its focus will transition to ongoing operations and maintenance activities. The review process has included the input and direction from the Finance and Personnel Committee (Committee), the Board, as well as input from interested outside participants (Working Group) which includes representatives from the development community and allows them to provide input as staff develops its updated Long-Term Capital Funding Plan (LTFP).

The LTFP process resulted in a recommendation for a master consolidation plan that focused on combining developed and developing areas into separate improvement districts (IDs). As part of the reorganization of IDs, the California Water Code requires that a Plan of Works (POW) document be completed. A POW provides the linkage between the engineering plan to fund the necessary infrastructure and the corresponding financial requirements. Staff anticipates the adoption of six new POWs as a result of implementing the District's master consolidation plan. The Board of Directors must adopt each POW in a noticed hearing.

At the Committee meeting on September 20, 2013 and the Board meeting on September 23, 2013, staff will provide the following:

- A preliminary draft of the POW for ID 253 (the developing ID), included as Exhibit "A", and
- A PowerPoint presentation providing an overview of a POW, included as Exhibit "B".

The preliminary draft of the ID 253 POW is substantially representative of the other five POWs, with differences reflecting water compared with wastewater, and differences unique to each ID. The five remaining POWs will be presented to the Board at its October 14, 2013 meeting.

BACKGROUND:

At the Committee meeting in August 2012, staff presented a proposed four-step work plan, addressing specific tasks that would need to be completed before changes to the current capital funding plan can be assessed and implemented. The Committee authorized staff to proceed with Task 1 of the Work Plan which included an assessment of 1) the impacts of leaving the current capital funding plan unchanged in future years, and 2) modifications to the baseline by applying certain working assumptions. The two scenarios were developed to identify issue areas and provide the basis for evaluating the effects of further changes.

The next step identified a modified baseline that considered alternatives to addressing the challenges the District would face if the course remained unchanged. Changes included:

- Revising the current new capital and enhancement definitions;
- Including the ID 110/210 area in future capital funding; and
- Using 1% revenues to fund enhancement and replacement projects with any remaining amounts allocated at the discretion of the Board.

Staff presented the Baseline and the Modified Baseline to the Board at the June 28, 2013 workshop. The applied changes improved the financial position of several IDs, but in many cases, additional adjustments would be required for ID financial sustainability. In some cases, general obligation authority would not be available to fund future capital. Staff reviewed with the Committee a master consolidation plan that focused on consolidating developed and developing areas into separate IDs.

Consolidation of IDs:

Consolidating existing IDs into developed and developing IDs provides a solution which addresses current issues including financial viability for the remaining IDs and having sufficient general obligation authority to fund future infrastructure. The recommended master consolidation uses a globalized approach that provides a fair and equitable method to allocate capital infrastructure costs that links the fees paid with the benefits received.

As part of the reorganization of IDs, the California Water Code requires that a POW document be completed. A POW provides the linkage between the engineering plan to fund the necessary infrastructure and the corresponding financial requirements. An integral part of a POW is a benefits analysis which supports that the engineering plan benefits all the territory infrastructure included within a specific ID. Staff anticipates the adoption of six new POWs as a result of implementing the District's master consolidation plan.

Staff intended to request Board approval of the first step in the consolidation process which is to declare intent to annex and detach parcels from 21 existing IDs to form the developed ID 125/225 at the September 23, 2013 meeting. The work necessary to submit the detachments and annexations are not expected to be completed until September 30, 2013. The public hearings previously scheduled for October are expected to be delayed approximately two weeks. The revised schedule to approve the consolidations and related POWs are outlined below:

| Date | Board Calendar | Explanation |
|-------------|---|--|
| 10/14/2013 | Board Action Item: <ul style="list-style-type: none">• Declare Intent to Annex and detach parcels from 21 IDs to form the coterminous IDs that will be consolidated as ID 125/225(the developed/underlay ID). | Maps must be completed before the Board declares the intent to annex. Maps are expected to be completed by September 30, 2013. |

| Date | Board Calendar | Explanation |
|------------|---|--|
| 10/28/2013 | Public Hearing: <ul style="list-style-type: none"> • Hearing/Order annexations and detachments, 21 IDs 125/225(the developed/underlay ID) • Declare intent to consolidate coterminous IDs, 21 IDs - 125/225 • Declare intent to annex and detach parcels, ID 153/253(the developing ID) • Declare intent to form IDs 185/285 (portion of the Opportunity Study Area currently in ID 135/235) • Declare intent to adopt POWs, 125/225, 153/253, 185/285 | Notice of these actions must be published two times before the public hearing. Declaring intention to consolidate requires a 4/5 affirmative vote of the Board of Directors. |
| 11/11/2013 | Public Hearing: <ul style="list-style-type: none"> • Hearing/Order consolidation of coterminous IDs, 21 IDs 125/225 • Hearing/Order annexations and detachments, ID 153/253 • Hearing/Order formation, ID 185/285 • Hearing/Adopt POWs | Notice of these actions must be published two times after the October 14, 2013 public hearing and before this public hearing. |

A preliminary POW for the newly forming developing ID 253 is attached as Exhibit “A” that includes a benefit analysis supporting the new ID consolidation and related capital infrastructure requirements.

FISCAL IMPACTS:

The net fiscal impacts will be minimal to the District as a whole and vary based on the improvement district.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

This item was reviewed by the Special Finance and Personnel Committee on September 20, 2013.

RECOMMENDATION:

RECEIVE AND FILE.

LIST OF EXHIBITS:

Exhibit “A” – Preliminary Draft POW for ID 253

Exhibit “B” – PowerPoint Presentation providing an overview of the POW

Exhibit “A”

09/18/13 DRAFT

**REVISED
PLAN OF WORKS
PROVIDING FOR WASTEWATER COLLECTION AND TREATMENT
AND WATER RECYCLING FACILITIES FOR**

[logo]

**IRVINE RANCH WATER DISTRICT
IMPROVEMENT DISTRICT NO. 253**

NOVEMBER, 2013

REVISED
PLAN OF WORKS
PROVIDING FOR WASTEWATER COLLECTION AND TREATMENT
AND WATER RECYCLING FACILITIES FOR
IRVINE RANCH WATER DISTRICT
IMPROVEMENT DISTRICT NO. 253

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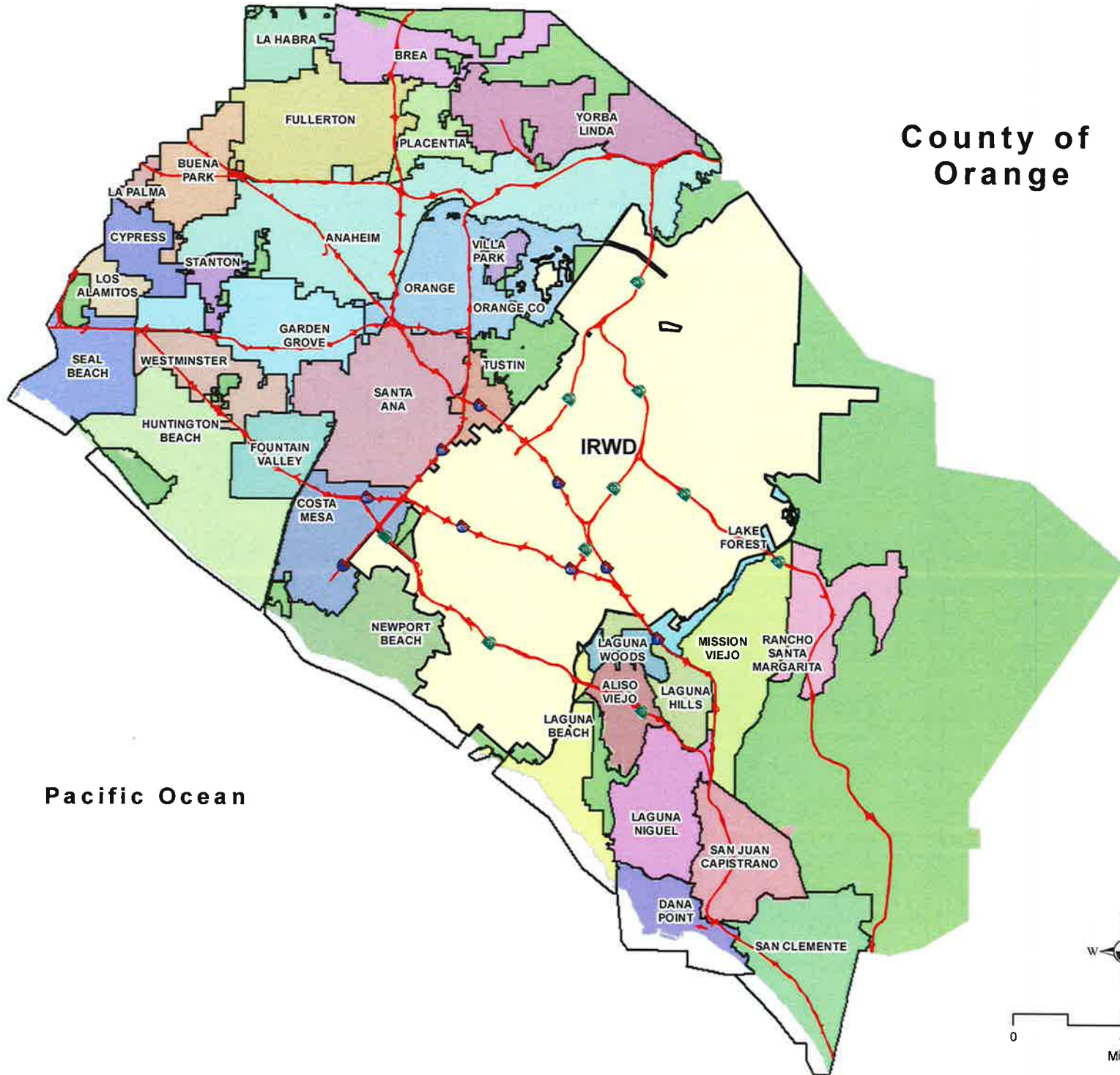
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County of Orange



A-4

Pacific Ocean



SECTION 1 INTRODUCTION

1.1 OBJECTIVES

This Revised Plan of Works is a means by which the fiscal requirements of the Improvement District are identified, including bond authorization, in order to provide for the construction, planning and design of facilities necessary to provide service within the Improvement District. The obligation of the Irvine Ranch Water District (“IRWD” or the “District”) is to plan to meet the projected service needs of the specific property within the Improvement District.

The planning of the District’s wastewater collection and treatment has been accomplished by the Wastewater Treatment Master Plan (“WTMP”) and its predecessor planning documents. The planning of the collection system is also addressed by the Sewage Collection System Plan. Recycled water supply, which is within the fiscal requirements of sewer plans of works, including this Plan of Works, is part of the scope of the Water Resources Master Plan (“WRMP”). Subarea master plans (“SAMP”) are created to plan in more detail the local facilities needed for development planning areas that may overlie all or part of an improvement district. SAMPs are generally prepared as the owner and the city planning agency begin the development process.

Plans of works are used to describe local facilities and proportional participation in regional facilities that the improvement districts will need, relying on the WTMP, WRMP and SAMPs for the detailed engineering and planning analysis. The role of the plan of works is founded in statute (Water Code 35950 *et seq.*) and is to define a plan for the facilities needed to serve the improvement district and make an estimate of their cost as necessary to support the voter authorization and issuance of general obligation bonds of the District for the improvement district. The plan of works thus provides the linkage between the engineering plan and the corresponding financial requirements by setting forth the basis for a determination by the Board of Directors in a noticed hearing that the plan benefits all the territory within the improvement district including any territory that has been annexed to it.

Plans of Works incorporate generalized facilities descriptions and some flexibility in the selection of specific projects. This allows the District to accommodate changes in development phasing, changes in technology and facilities planning developed through IRWD’s ongoing master planning and subarea master planning, and corresponding changes in costs of acquisition, construction, replacement, reconstruction and additions to facilities. The Board of Directors may determine that it is necessary to change a previously adopted plan of works. This has occurred in some instances in conjunction with a revision in the cost estimate making it necessary to propose a supplemental authorization of bonds, and it has also occurred in conjunction with improvement district reorganization. This Plan of Works has been prepared in connection with the reorganization of Improvement District No. 253 to include a number of planned development areas within the improvement districts concurrently consolidated as Improvement District No. 225. See Section 1.3.

The facilities generally identified in this Plan of Works may also change without a modification of the Plan of Works, in order to substitute other facilities to accommodate land use planning or development phasing determinations as they evolve, or in accordance with facilities planning modifications and refinements identified through IRWD's ongoing master planning and subarea master planning. The general purpose of the facilities in the Plan of Works is to meet the wastewater collection and treatment and recycled water requirements of the Improvement District, including basic system redundancy and reliability in accordance with the policies of the District. As the facilities are needed, IRWD will choose those projects which provide wastewater collection and treatment and recycled water services most economically. Projects may include acquisition, construction, reconstruction and addition to facilities. The fiscal requirements identified in the Plan of Works include the development phase, during which the system will be expanded and a share of the existing regional system will be acquired as needed to serve the Improvement District, and will continue thereafter, representing the Improvement District's participation along with other improvement districts in the completion of the IRWD regional system.

This Plan of Works has the following general objectives: (1) update the description of the wastewater system capital facilities; (2) provide a revised plan of works to supersede and replace the existing plan of works of the improvement district being reorganized; and (3) evaluate the benefit of the revised plan of works to the territory of the reorganized improvement district.

The further objectives of this Plan of Works are to determine logical planning areas and the need for facilities. This includes (1) a proportionate share of regional wastewater collection and treatment and recycled water facilities; and (2) adequate local planning and system layouts based on the projected ultimate development within the Improvement District.

IRWD's ID No. 253 was formed as the successor sewer improvement district to ID No. 1 (water and sewer) of the former Santiago County Water District (SCWD), in conjunction with the consolidation of SCWD with IRWD. This Plan of Works and the concurrently adopted Plan of Works for ID No. 153 will supersede the plan of works previously adopted for ID No. 1 by SCWD.

1.2 DESCRIPTION OF THE IRVINE RANCH WATER DISTRICT

The District was established in January, 1961, as a California Water district under the provisions of Section 34000 *et seq.* of the California Water Code (the "Act"). Presently the District has four primary services – supplying potable water, collecting and treating wastewater, producing and distributing recycled and other non-potable water and implementing urban runoff treatment programs. Historically, the District has provided agricultural water service as needed until residential or commercial development occurs, and provided potable and recycled water services and sewage collection and treatment service when development occurs. Recycled water is used for irrigation of agricultural areas, parks, parkways, greenbelt areas and school grounds, and is also used for individual yard landscaping in certain areas, industrial processing, toilet and urinal flushing and other purposes permitted by regulations. IRWD has also implemented a plan for natural treatment system service to divert urban

runoff of water used for irrigation and other outdoor uses and treat the runoff by natural processes in water quality wetlands and similar facilities.

The District serves a 178-square-mile area extending from the Pacific Ocean and over a central flat, alluvial plain to the foothills, which includes all of the City of Irvine and portions of the cities of Tustin, Newport Beach, Costa Mesa, Orange and Lake Forest, as well as certain unincorporated areas of the County. The District serves a total estimated population of approximately 330,000 through approximately 99,500 water and approximately 94,000 sewer service connections.

1.3 THE IMPROVEMENT DISTRICTS

Historical Background. At the time of the District's initial formation, the District's objective was to secure a supplemental water supply for irrigation and domestic use from The Metropolitan Water District of Southern California ("MWD"). This was accomplished through the installation of regional water transmission pipelines in cooperation with other districts in and the construction of the San Joaquin Reservoir, financed by the sale in 1961 and 1963 of general obligation waterworks bonds of the overall District aggregating \$10,500,000.

After the initial authorization of waterworks bonds for the overall District, all water and sewer bonds were authorized within improvement districts formed by the District to encompass specific geographic areas. The first improvement district formation occurred in 1965, when sewage collection and treatment were added to the District's powers and Improvement District No. 1, a sewer improvement district, was formed to provide financing for the District's first collection, treatment and reclamation systems. Between 1965 and 2008, the District formed 21 water improvement districts and 22 sewer improvement districts covering specific areas within the District's boundaries, some of them overlapping.

The District formed the improvement districts¹ in order to allocate funding responsibility for capital facilities to the areas which would benefit from such capital facilities. Local facilities addressed particular needs that varied by geographic area, proximity to existing infrastructure, elevation and other factors. Improvement districts were also used to separate areas on the basis of projected timing of development so that local capital facilities construction could be matched to development approval decisions as they occurred. In addition, improvement districts served as a mechanism to share the funding of the District's regional facilities to be used by improvement districts in common, such as major water importation facilities and water and wastewater treatment plants. The plans of works derived information from District-wide planning and from land development plans as the basis for determining, for water improvement districts, the water requirements and the size, location and phasing of water

¹ Most of the improvement districts were formed by the District's Board of Directors, but Improvement district formation was in some cases accomplished by the District's predecessor district or the Orange County Local Agency Formation Commission, in the case of certain areas included in the District by annexation or consolidation with another district.

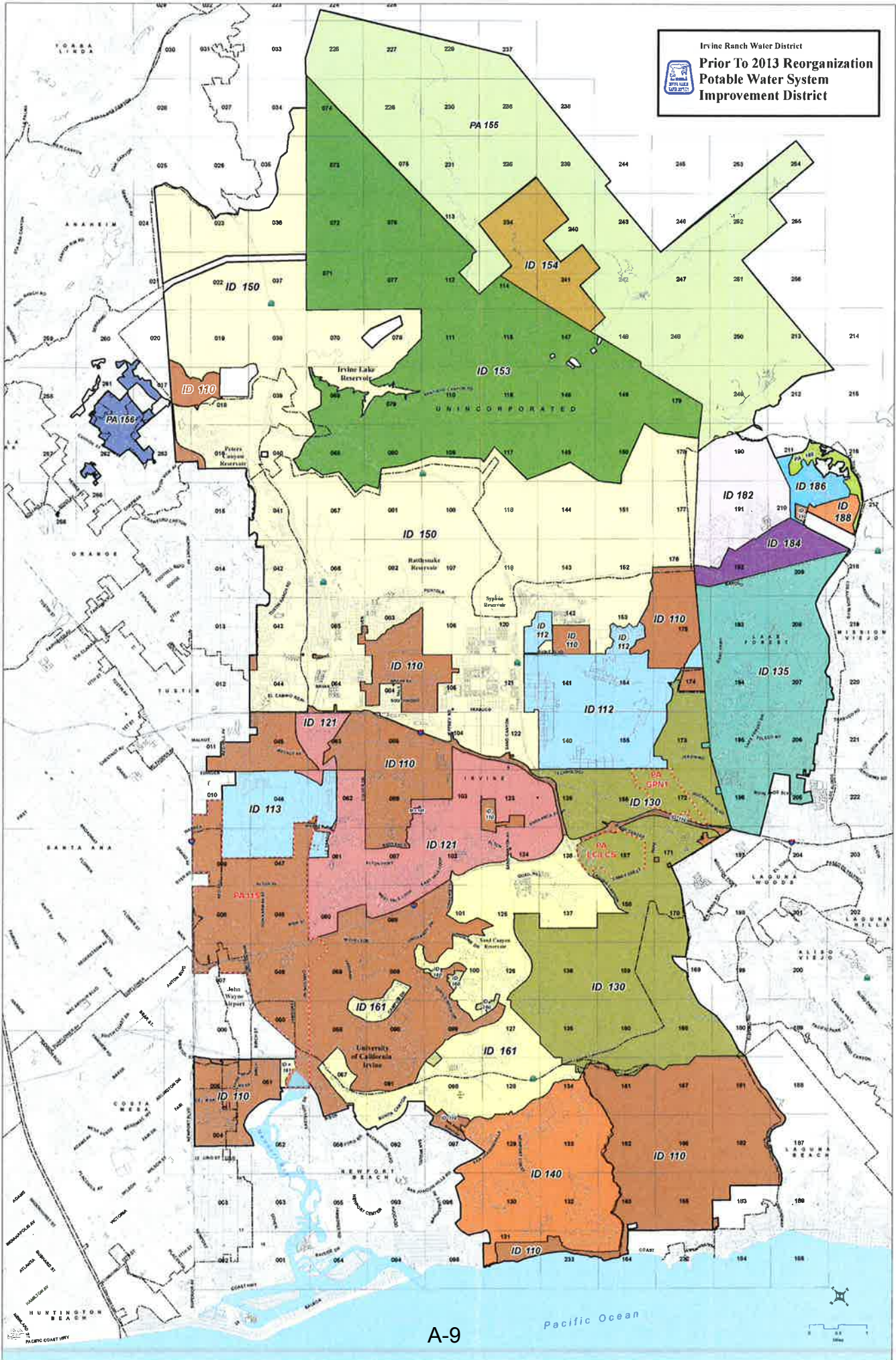
delivery facilities to be constructed from the existing feeders and other supply sources to serve] and, for sewer improvement districts, the sewage generation and recycled water requirements and the size, location and phasing of sewer collection and recycled water delivery facilities to be constructed from the existing trunk sewers and recycled water distribution system to serve the various planning areas and service elevations or zones. As changes occurred in development planning, annexations and detachments were used to modify the boundaries of some of the improvement districts.

Water Improvement Districts. The initial financing of the District's water facilities was undertaken in the early 1960s with bonds of the District. During the 1970s, the District formulated a water facilities master plan and formed many of the water improvement districts that have existed until the current reorganization and consolidation. The first water improvement district to be formed was Improvement District ("ID") No. 104, formed in 1972, followed by the formation of ID Nos. 103 and 105 in 1974, and ID Nos. 102, 106 and 109 in 1976. When water improvement districts were formed, the District excluded lands (sometimes referred to collectively with the shorthand reference "110" in keeping with the District's numbering system for designating improvement districts) that were determined to have funded a portion of the District's earliest regional system costs through payment of debt service on general obligation waterworks bonds of the overall District in the 1960s.

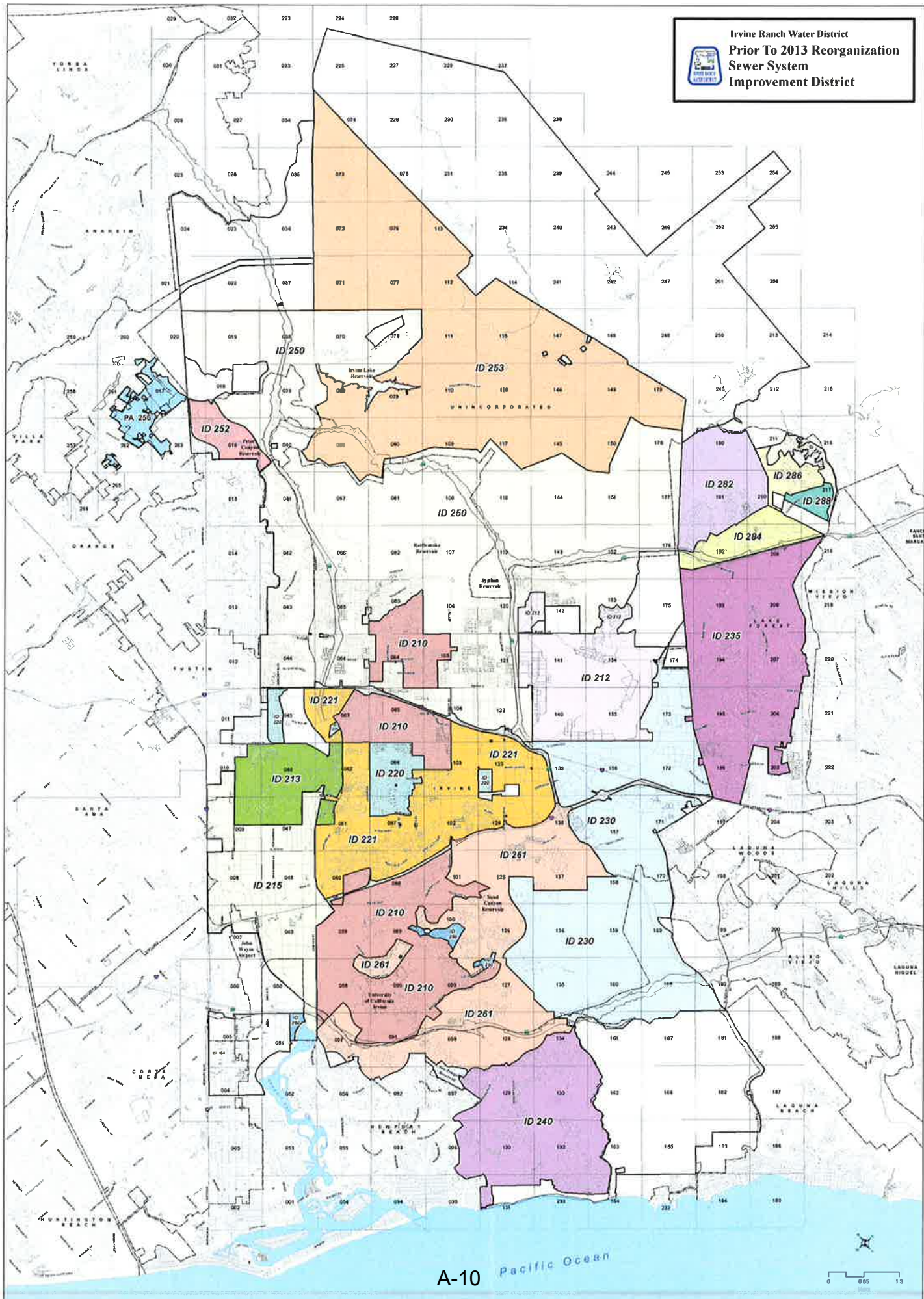
ID No. 104 incorporated the coastal area of the District from the Pacific Ocean to the crest of the San Joaquin Hills. ID No. 103 covered the planned industrial and commercial developments, then known as the Irvine Center Planned Community or "Regional Triangle" and the Irvine Industrial Complex-East, in the vicinity of the intersection of the Santa Ana and San Diego Freeways and adjacent to the Marine Corps Air Station, El Toro. ID No. 105, containing about 22,000 acres in the northernmost portion of the District extending from the Santa Ana Freeway to the northerly, easterly and westerly boundaries of IRWD, was formed initially to build a pipeline to replace the Highline Canal System for the delivery of water from Irvine Lake for agricultural irrigation purposes; its first plan of works contemplated that these untreated water facilities would be augmented with later phases of works to deliver domestic water. ID No. 102 was formed to include the central part of Irvine, between the Santa Ana and San Diego Freeways. ID No. 106 encompassed the Turtle Rock, Quail Hill and Bonita Canyon areas of the San Joaquin Hills, extending north to the San Diego Freeway. ID No. 109 covered the portion of the San Joaquin Hills extending eastward from proposed Sand Canyon Avenue to the eastern boundary of the District.

As urban growth continued, further phases were added to the District's planned water system in the mid- to late 1970s, and it became necessary to increase the authorization of bonds to finance them. To accomplish that objective for some of the initial water improvement districts, the District revised the plans of works and elections were conducted to obtain supplemental bond authorizations (ID No. 103 in 1976, 1977 and 1978, ID No. 105 in 1976 and 1978, and ID No. 109 in 1978). In other improvement districts, the District formed overlapping improvement districts with new bond authorizations: ID Nos. 121, 141 and 142, and 161 were formed in 1978, overlapping portions of ID Nos. 102, 104, and 106, respectively.

Irvine Ranch Water District
**Prior To 2013 Reorganization
 Potable Water System
 Improvement District**



Irvine Ranch Water District
 Prior To 2013 Reorganization
 Sewer System
 Improvement District



Beginning in the late 1980s, other water improvement districts were formed as areas were added to the District by annexation and consolidation and as former military bases were closed and underwent reuse planning. In 1988, ID Nos. 182 and 184 were formed over the Foothill Ranch (Whiting Ranch) area located in the foothills and canyons north of El Toro in eastern Orange County, an area that was annexed to IRWD in 1982. ID No. 182 covered the northern, predominantly residential portion of this planning area and ID No. 184 covered the southern, predominantly commercial portion. Later in 1988, ID Nos. 186 and 188 were formed over the annexed Glenn Ranch area lying to the east of Foothill Ranch and including a portion of the community of Portola Hills. ID No. 186 covered the northern, predominantly residential portion of this planning area and ID No. 188 covered the southern, predominantly commercial portion.

ID No. 135, encompassing the territory of the former Los Alisos Water District ("LAWD"), was formed as part of the proceedings for LAWD's consolidation with IRWD on December 31, 2000, to provide a vehicle for issuing and servicing LAWD's remaining water bond authorization. ID No. 135 lies to the northeast of the intersection of the Santa Ana and San Diego Freeways, and includes a portion of the City of Lake Forest.

ID No. 113 was formed in 2004 over the property within the former Marine Corps Air Station Tustin, a facility established in 1942 to support U.S. Navy lighter-than-air aircraft (blimps) conducting anti-submarine patrol off the California coast during World War II and later used to support Marine Corps helicopter operations until its closure in 1999. The former helicopter base, now known as Tustin Legacy, is currently being redeveloped with residential, commercial, institutional and recreational uses.

The formation of ID Nos. 153 and 154 took place in conjunction with the July 1, 2006 consolidation of the former Santiago County Water District (SCWD) with IRWD, to serve as the successors to two improvement districts formed by SCWD in 1978, ID No. 1 (water and sewer) in the area extending northward from Loma Ridge to the Fremont Canyon area, and ID No. 2 (water) including portions of Black Star, Baker and Hall Canyons. As part of the district consolidation, the majority of the territory of SCWD's ID No. 1 became ID No. 153 (with respect to ID No. 1's water bond authorization), and all of the territory of SCWD's water ID No. 2 became ID No. 154 of IRWD.

The most recent IRWD water improvement district formation took place in 2008, when the District formed ID No. 112 over the lands in the eastern portion of the District north of the Santa Ana Freeway, within the former Marine Corps Air Station El Toro, a base originally established in 1942 to support U.S. Marine Corps aviation activities during World War II, and encompassing the planning areas now known as Heritage Field and the Great Park.

Sewer Improvement Districts. The first sewer improvement district to be formed by the District was Improvement District No. 1, in 1965. ID No. 1 encompassed an area lying south of the San Diego Freeway and ranging from two to seven miles inland from the Pacific Ocean, including most of the University of California Irvine campus. ID No. 1 assumed the obligations of Orange County Sanitation

District No. 14 for the cost of a nucleus collection system when District No. 14 was disbanded,² and ID No. 1's planned works also included a treatment plant and IRWD's initial reclamation and reclaimed water storage facilities. ID No. 1 is presently known as ID No. 1(201) or "210." Like "110," the "210" area was excluded from later improvement district formations based on its initial contribution.

After ID No. 1, sewer improvement district formations generally paralleled the water improvement district formations discussed in the preceding section. In the case of most of the improvement districts formed before 1978, each sewer improvement district preceded its water counterpart by a few years; after that, each water improvement district and its corresponding sewer improvement district were generally formed concurrently and were coterminous.

In 1971, sewer ID Nos. 2 (subsequently known as 202) and 3 (subsequently known as 203) were formed over areas generally corresponding to the areas that, a few years later, were included in water ID Nos. 102 and 103, described above. Their plans of works contemplated an expansion of the Michelson Water Reclamation Plant, dual collection and treatment systems for reclaimable domestic wastewater and non-reclaimable industrial discharges, reclaimed water distribution facilities and wet weather treated wastewater disposal. ID No. 204 was formed in 1972 at the same time as the corresponding water ID No. 104. ID No. 204's plan of works initially envisioned two systems delivering sewage from the coastal area, one discharging to a regional treatment and disposal system and the other to a local treatment plant to be built. Ultimately, the collection system was instead designed to deliver all of the sewage flow from ID No. 204 (and from the later-formed ID Nos. 241 and 242) to the interceptor and trunk sewers and regional treatment facilities financed by Orange County Sanitation District No. 5. ID No. 206 was formed in 1975, covering the area corresponding to ID No. 106 which was formed the following year.

As happened in the water system, the addition of further phases of facilities to the planned wastewater system in the late 1970s made it necessary to increase the authorized bonds to finance them. In 1978, the District formed ID Nos. 221, 241, 242, 250, 261 and 290 (coterminous with the counterpart water ID Nos. 121, 141, 142, 105, 161 and 109, respectively).

Beginning in the 1980s, the addition of areas to the District by annexations and consolidations and the closure of former military bases generally led to the formations of sewer improvement districts at the same time as the corresponding water improvement district formations, described above.³ ID Nos. 282, 284, 286 and 288 were formed in 1988 (coterminous with ID Nos. 182, 184, 186 and 188, respectively). ID No. 235, encompassing the territory of the former LAWD and coterminous with ID No. 135, was formed upon LAWD's consolidation with IRWD on December 31, 2000, to issue and service

² The disbanded Sanitation District was the original "District No. 14." Another District No. 14 of the Orange County Sanitation Districts was formed in 1986, over much of IRWD's territory (except for the coastal portion within Orange County Sanitation District No. 5), for the purpose of acquiring regional collection, treatment and disposal capacity in the OCSDF facilities to augment IRWD's Michelson Water Reclamation Plant. See Section 1.4.

³ An improvement district unrelated to the addition of service area to the District, ID No. 252, was formed in 2005, encompassing a small portion of the area formerly within ID No. 250.

LAWD's remaining sewer bond authorization. Upon the July 1, 2006 consolidation of the former Santiago County Water District with IRWD, ID No. 253 (coterminous with ID No. 153) was formed as the successor to Santiago County Water District ID No. 1's 1978 sewer bond authorization). ID Nos. 213 (coterminous with ID No. 113) and 212 (coterminous with ID No. 112) were formed in 2004 and 2008, respectively. In 2008, ID No. 256 was formed through annexation proceedings that were conducted to include the former territory of Orange Park Acres Mutual Water Company in IRWD. ID No. 256 has no authorized bonds, but was formed to provide a potential vehicle for such authorization if and when the residents of the area, now served predominantly by septic tanks, determine to finance a public sewer collection system to allow a conversion to sewer service.

Regional Allocation. As the regional water system has been built, allocations among the improvement districts have been utilized to maintain proportionate sharing of regional system costs. Allocations among the improvement districts have similarly been utilized to maintain proportionate cost allocation of regional sewer system costs. Regional potable water and regional sewer allocations are based on demands. For the portion of the regional costs relating to the reclamation system, historically allocation was weighted, with two-thirds of the cost of the storage, transmission and disposal facilities making up the regional irrigation system allocated based on the improvement districts' prorated shares of the sewage generation and one-third of the cost prorated based on their share of irrigation water demands. That practice was subsequently discontinued, and the District instituted its current practice of establishing separate regional allocations for sewer facilities, based on sewage generation, and recycled water facilities, based on recycled water demand, for each sewer improvement district. Cost variations among tributary collection system areas have also been factored into the regional wastewater allocation. The regional split for the area within ID No. 240 reflects that ID No. 240 has participated in the financing of the Orange County Sanitation District's treatment facilities and does not discharge wastewater to the MWRP collection system.

Regional allocation includes facilities serving all improvement districts as well as sub-regional facilities serving two or more, but not all, improvement districts. Consistent with regional allocation, as certain areas were added to IRWD's service area through annexations, consolidations, and military base conversions, in some areas acquisition balances were established to recover regional system cost, and in others new improvement districts were formed to assure that those areas would contribute proportionately to regional facilities and pay for local facilities and expanded regional facilities to serve their demands. Regional allocation will continue to be used with the reorganized improvement districts to assure proportionate cost-sharing of the District's regional system.

Under the District's historic and continuing methodology for achieving equitable cost allocation, the improvement districts will continue to be allocated proportional shares of regional system project costs until the regional systems are complete; individual improvement districts are not relieved of that obligation although they may receive service through the regional systems prior to their completion. As a result an improvement district can reach full development, but its regional system funding participation will continue. A similar regional allocation would be applied to replacement and enhancement projects, to the extent funded by the improvement districts. This incremental funding

approach also recognizes that at any point in time prior to full buildout, a portion of the cost of the development of the regional systems has been borne by ad valorem assessments on lands not yet fully developed and receiving service.

As discussed in more detail in Section 6, the District will also allocate future regional cost sharing to “110” and “210” areas excluded from earlier improvement district capital funding, based upon an analysis of historic cost contributions of these areas and benefit received from future capital facilities.

Consolidation of Improvement Districts. As development progresses to completion in improvement districts and the need for having separate improvement districts to match capital facilities construction timing and other specific local facilities needs of different geographic areas diminishes, consolidation of various improvement districts can produce efficiencies for the District, its customers and property owners. The California Water Code allows the Board of Directors, in a noticed hearing process, to reorganize its improvement district boundaries and to consolidate coterminous improvement districts. The statutory provisions for the consolidation of improvement districts specify that a consolidated improvement district may levy and collect the assessments and charges necessary to satisfy the obligations of its predecessor improvement districts, and that the authorized and unissued bonds of the predecessor improvement districts may be issued and sold as the bonds of the consolidated improvement district.

Ultimately, the District envisions a long-term strategic plan that would reduce the number of its improvement districts, ideally to one water improvement district and one sewer improvement district, through consolidations and reorganizations to be implemented as and when considerations for separation of the various improvement districts no longer remain. The current reorganizations and consolidations significantly advance this plan. The timing of the remainder of this plan will be dictated by various factors relating to the preservation of equitable cost sharing as development continues to buildout and as the regional system benefits for various geographic areas are merged.

Previous Consolidations. Under the statutory consolidation provisions, some of the original improvement districts described in the preceding sections have been consolidated. The consolidations that were implemented prior to the current consolidation included two groups of the original improvement districts. The first of these consolidations took place in the coastal area. In 1989, after completing annexations to and detachments from ID Nos. 104, 141 and 142 to exclude permanent open space areas and create coterminous boundaries for the improvement districts’ remaining territories, they were consolidated, with the resulting consolidated improvement district designated as ID No. 140. Simultaneously, ID Nos. 204, 241 and 242 were consolidated as coterminous improvement districts, with the resulting consolidated improvement district designated ID No. 240. Following a similar process in 2008, ID Nos. 103 and 109 were consolidated and designated as ID No. 130 and ID Nos. 3(203) and 290 were consolidated and designated as ID No. 230.

The Current Consolidations and Reorganizations. With the 1989 and 2008 improvement district consolidations, the District began to implement a transition of its improvement district financing

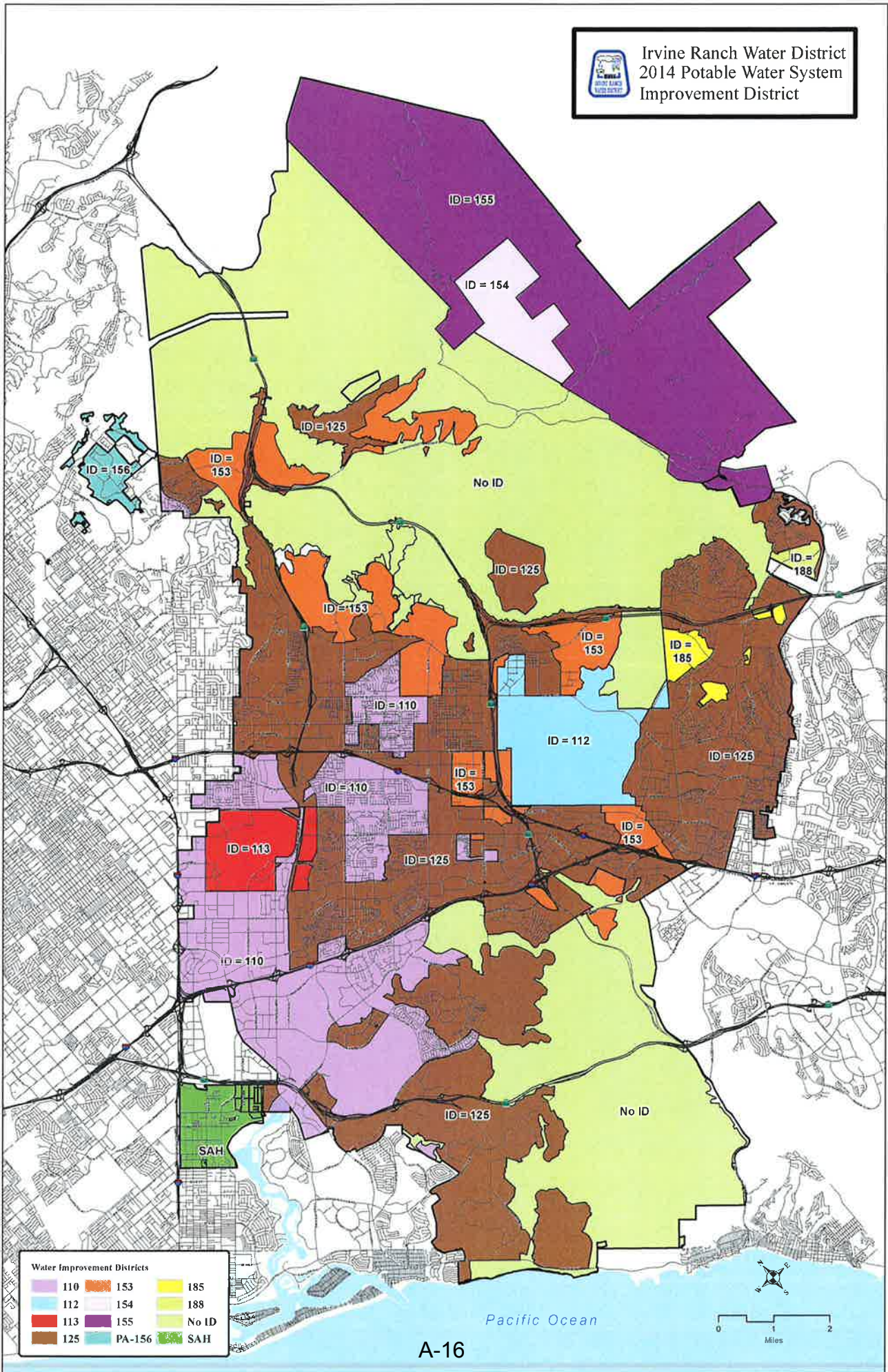
structure from a developing to a developed condition. The current consolidations continue that transition. Based on the District's investigation of the merits of implementing further reorganization and consolidation of its improvement districts, the current reorganization and consolidation have been formulated on a comprehensive, District-wide basis, to provide a sustainable platform for capital funding through the buildout of the District and the completion of the system. The current reorganization and consolidation preserve the District's long-term funding approach in which regional facilities and capacity are acquired incrementally by all improvement districts until the regional system as a whole is complete and regional cost allocations are used to maintain equitable cost-sharing. The interrelated consolidation actions, expected to be effective by January 1, 2014, include the following key components:

- Reorganization and consolidation of the substantially developed and certain partially developing improvement districts into a single water improvement district and a single sewer improvement district, ID Nos. 125 and 225;
- Reorganization of several remaining developing areas into one existing and one new water improvement district (ID Nos. 153 and 185) and one existing and one new sewer improvement district (ID Nos. 253 and 285). These developing areas are also retained within the improvement districts reorganized and consolidated as ID Nos. 125 and 225, with the effect that ID Nos. 125 and 225 will underlay these developing improvement districts and ensure cost participation of these developing improvement districts in local and sub-regional facilities already built by the former improvement districts being consolidated (see Chapter 6);
- Retention of existing ID Nos. 112, 113, 188, 212, 213 and 288 as separate developing improvement districts;
- Retention of existing ID Nos. 154, 252 and 256 pending future evaluation of applicable equity considerations;
- Establishment of a planning area over the area of former ID No. 135, consolidated within the developed water improvement district ID No. 125, until completion of financial programs currently in progress to place the former ID No. 135's user rates under the same structure as other developed areas;
- Retention of existing ID No. 240 as a separate improvement district, unless and until separate regional wastewater cost allocations are no longer necessary;
- Implementation of separate charges or other mechanisms, as necessary, to recover a proportional allocation of cost for future regional facilities from the "110" and "210" areas that are not participating in proportional regional cost allocation by inclusion in an improvement district.

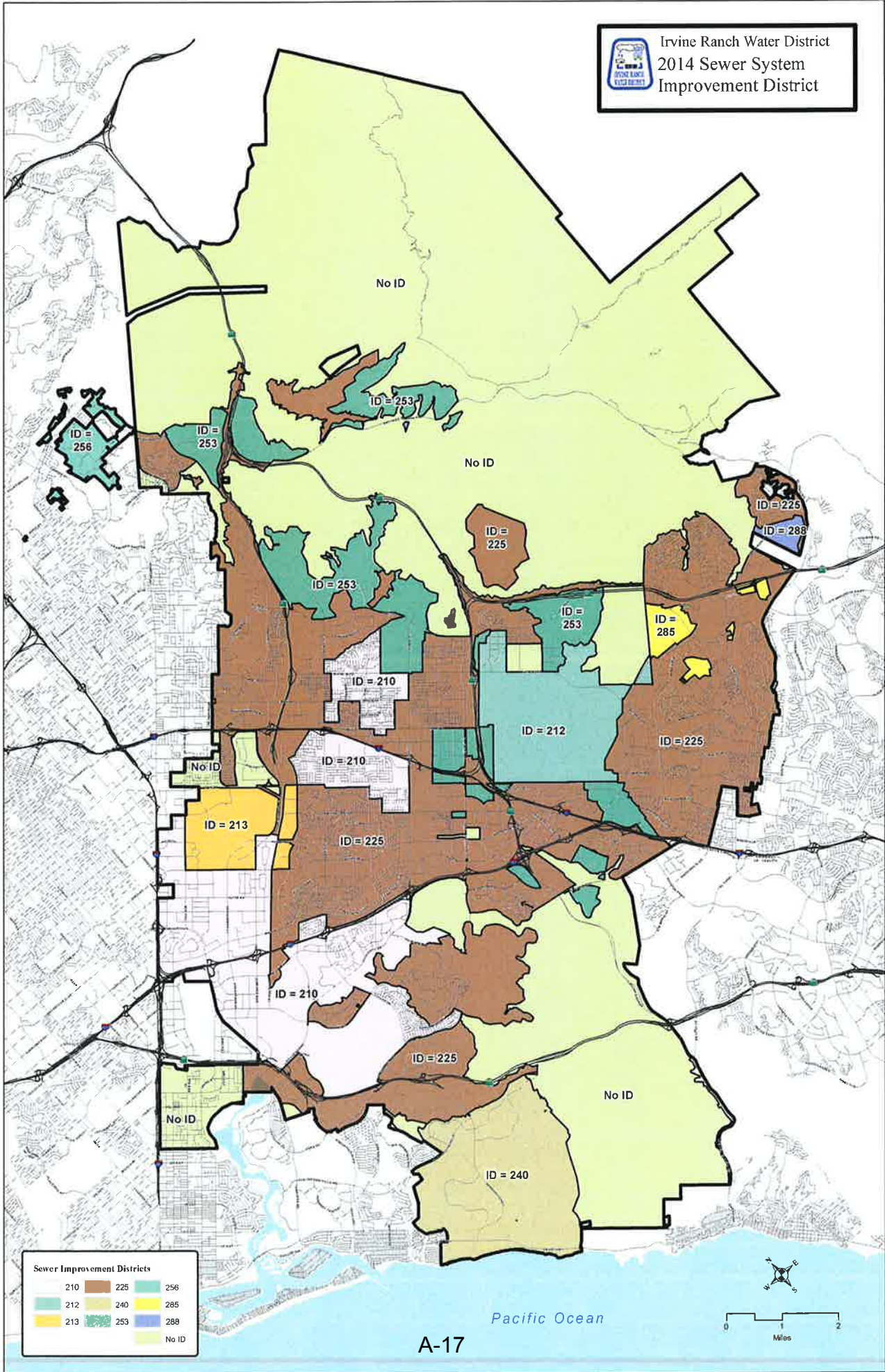
Throughout the construction of the District's capital facilities, the District has separated the financing of its water and sewer (including recycled water) systems. The District believes this historical separation continues to be justified, based on differences between the two systems in terms of the factors that govern the allocation of benefits and cost responsibilities among the areas served by each



Irvine Ranch Water District
2014 Potable Water System
Improvement District

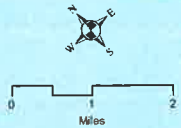


| Water Improvement Districts | | |
|-----------------------------|--------|-------|
| 110 | 153 | 185 |
| 112 | 154 | 188 |
| 113 | 155 | No ID |
| 125 | PA-156 | SAH |



| Sewer Improvement Districts | | | |
|-----------------------------|-----|-----|--|
| 210 | 225 | 256 | |
| 212 | 240 | 285 | |
| 213 | 253 | 288 | |
| No ID | | | |

Pacific Ocean



system. For this reason, the above described actions do not include any consolidations of water improvement districts with sewer improvement districts, and the District has no plans at this time to do so. The separation can be reexamined in the future.

1.4 THE WATER, WASTEWATER AND RECYCLED WATER SYSTEMS

The Water System. The initial domestic water system included the San Joaquin Reservoir⁴ and IRWD's capacity in the East Orange County Feeder No. 2 and other transmission facilities, financed by the sale of general obligation waterworks bonds of the overall District in the 1960s. The District also acquired from the U.S. Government an 18-inch transmission main used to deliver a water supply to the Tustin and El Toro military bases from Metropolitan Water District's East Orange County Feeder and later from East Orange County Feeder No. 2. For the delivery of untreated water supplies, the District acquired capacity in the regional untreated delivery system of the Santiago Aqueduct Commission.

The District's Water Resources Master Plan ("WRMP"), initially formulated in 1972 and updated periodically, sought to provide for ultimate demands and reliability. With the formation of the first few improvement districts and the authorization and sale of improvement district bonds in the early 1970s, the system was expanded, adding local master planned facilities for each of the developing areas as development progressed and building the regional system in which the improvement districts participated in proportion to their demands. Through cooperative efforts with Municipal Water District of Orange County ("MWDOC"), neighboring water districts and cities, an areawide system was acquired, storage was constructed and transmission pipelines were acquired and installed to receive Colorado River imports via MWD facilities. This supplemental source of water was augmented by northern California supplies with commencement of deliveries through the State Water Project system in July, 1976.

In 1978, additional water capacity needed to serve the District was estimated at 140 cubic feet per second ("cfs") (ultimate peak month demand). A supplementary water source plan envisioned in the 1970s and embodied in the 1978 plans of works consisted of the purchase of a 60 cfs share of a proposed regional pipeline (then known as the "Diemer Intertie" and now known as the Allen McColloch Pipeline or "AMP") and an 80 cfs wellfield in the main Orange County groundwater basin. The AMP was constructed by MWDOC, with 79 cfs participation by IRWD, and IRWD constructed two transmission mains capable of supplying 45 cfs from AMP into the distribution system. These facilities, along with two wells in the Tustin area with a combined capacity of 4 cfs, and the Zone 1 Reservoir to provide internal operational storage and avoid the need to supply peak hour demands from feeder connections, comprised the first phase of the domestic water system. Construction of the 80 cfs wellfield, known as the "Dyer Road Wellfield," took place in the 1980s.

⁴ The San Joaquin Reservoir was initially constructed as a domestic water facility. Due to water quality considerations, that use was eventually discontinued, and IRWD acquired the facility from its agency partners and converted it to a recycled water seasonal storage facility.

As the domestic water system was built, it was anticipated that commercial agriculture would be phased out by residential, industrial and commercial development, and it was assumed that the existing irrigation system would provide agricultural water until no longer needed. The cost of the untreated water system and its supply, storage and transmission facilities, consisting of the Irvine Lake Pipeline and improvements to Irvine Lake, were apportioned primarily to ID No. 105. In the 1970s, the ID No. 105 plans of works noted that the Irvine Lake Pipeline supply would require treatment for use as a domestic water supply, and an untreated delivery system from Irvine Lake, through either the Santiago Aqueduct Commission facilities or a new Irvine Lake Pipeline, as well as a treatment plant identified in the 1972 WRMP, were included in the planned works for that improvement district.

In the early to mid 1980s, as the district's water supply needs were updated, other phases of regional system improvements were planned and financed by the improvement districts, including the continued construction of the regional supply, transmission and storage facilities, administration and operations facilities and telemetry.

The AMP, Dyer Road Wellfield and major delivery facilities were completed as contemplated in the existing plans of works. With those core imported and groundwater supply and delivery facilities and the associated distribution system in place, the District's current WRMP targets a reliable water supply mix and includes the development of sufficient groundwater production capacity to pump up to the District's basin production percentage set by the Orange County Water District.

In accordance with current IRWD policy, basic operational reliability and redundancy for the water system is evaluated with reference to the capacity needed to sustain an outage of a major supply system component, assuming demand reduction obtainable through customer cooperation.

Wells in addition to those in the Dyer Road Wellfield have been constructed or improved in Orange Park Acres, Lake Forest and Irvine to provide additional groundwater supplies. The groundwater production and treatment components of the Irvine Desalter Project produce both domestic and recycled water supplies

In 2009-10, the District commenced the engineering design for a new water treatment plant, the Baker Water Treatment Plant (the "Baker WTP"). Construction of the Baker WTP is anticipated to be complete in July 2015. This project, to be constructed by the District in cooperation with neighboring water districts, will improve operational supply capacity and regional reliability through the treatment of local and imported raw water sources to drinking water standards. When constructed, the Baker WTP is expected to treat to drinking water standards approximately 28 million gallons per day ("mgd") of raw imported water purchased from MWD. During emergencies and planned raw imported water outages, water from Irvine Lake is expected to be supplied to the Baker WTP for treatment to drinking water standards. The Baker WTP will utilize microfiltration and ultraviolet disinfection as the primary treatment processes.

In addition to developing its water treatment, local groundwater and recycled water systems, the District is diversifying its water supply portfolio by developing water banking projects for dry year reliability. These projects include the Strand Ranch Integrated Banking Project and the Stockdale Integrated Banking Project, situated on groundwater recharge lands that overlie the regional Kern County groundwater basin. The District has also secured access to certain participation rights in the Kern Water Bank to store water. The purpose of developing banking facilities is to improve the District's water supply reliability by enabling the District to store lower cost water it can acquire during wet hydrologic periods for use during dry periods. The District has entered into arrangements to acquire water for banking, including unbalanced exchanges and other transactions. The banking facilities will enhance the District's ability to respond to drought conditions and potential water supply interruptions and will provide the District the ability to reduce the cost of water delivered under such conditions. The District has also entered into an agreement with MWD and MWDOC to provide a means to deliver banked water to the District's service area.

The Wastewater System. The District's powers did not include sewage collection and treatment when the District was formed. When the District's principal act, the California Water District Law, was amended to permit California water districts to provide sewage services subject to voter approval, voters of the District approved the added scope of services at an election held in March, 1965.

The District began the construction of a wastewater system with the bonds of ID No. 1 issued in 1966 and subsequent bonds issued on behalf of ID Nos. 2(202) and 3(203). In addition to the nucleus sewage collection system acquired from Orange County Sanitation District No. 14, the original planned works included a treatment plant, reclamation and reclaimed water storage facilities. Subsequent plans of works contemplated an expansion of the Michelson Water Reclamation Plant, dual collection and treatment systems for reclaimable domestic wastewater and non-reclaimable industrial discharges, reclaimed water distribution facilities and wet-weather treated wastewater disposal.

The Michelson Water Recycling Plant ("MWRP"), then known as the Michelson Water Reclamation Plant, has been expanded in phases. The most recent expansion, anticipated to be completed during fiscal year 2014, will bring its capacity from 18 to 28 mgd. The District's wastewater system also includes facilities and contractual entitlements to serve the portions of its service area in the coastal, Lake Forest and Santa Margarita ("Chiquita") areas not tributary to MWRP, as well as regional treatment capacity in the facilities of Orange County Sanitation District for the sewage from the MWRP-tributary area that is in excess of its needs for production of recycled water.

The wastewater system to serve the coastal area not tributary to MWRP was first envisioned as two systems, one discharging to a regional treatment and disposal system and the other to a local treatment plant to be built. Ultimately, the collection system for the coastal area was instead designed to deliver all of the sewage flow to the regional collection and treatment facilities of Orange County Sanitation District No. 5.

During fiscal year 1986, the District cooperated with Orange County Sanitation District (“OCSD”) to form Sanitation District 14 (functionally replaced by “Revenue Area 14” of OCSD, upon the 1998 consolidation of the several sanitation districts comprising OCSD’s predecessor, the County Sanitation Districts of Orange County), which overlays much of the District’s territory other than the coastal area. Under an agreement entered into between the District and OCSD, the District acquired equity interests in OCSD’s sewage processing facilities (the percentage of interest will vary over time pursuant to a formula set forth in the agreement between OCSD and the District). The agreement also provides for the purchase by the District of additional capacity in OCSD sewage processing facilities on an as-needed-basis determined from annual flows. These equity purchase costs are included in the costs regionally allocated to the improvement districts.

In 2000, as part of the consolidation of Los Alisos Water District with the District, the Los Alisos Water Reclamation Plant (“LAWRP”) was added to the wastewater system. Currently, approximately 85% of the District’s wastewater is treated by the MWRP and LAWRP operated by the District, and approximately 14% is treated by OCSD. A small portion of the wastewater (less than 1%) from the District’s service area that is adjacent to the Santa Margarita Water District is treated by the Santa Margarita Water District pursuant to contract.

A future MWRP expansion up to 33 mgd has undergone environmental review and is planned by 2025, as needed to meet demand. Ultimately, the District plans to expand capacity for its treatment facilities to approximately 40.5 mgd in order to: (i) increase recycled water production and utilization; (ii) decrease exposure to external treatment costs and operational constraints; and (iii) decrease dependencies on imported water supplies.

The construction of IRWD’s regional sewer system also includes the network of gravity sewers, force mains, wastewater lift stations and siphons that convey wastewater to each treatment facility, which was developed as the system was expanded.

The processes for treating sewage and producing recycled water generate solids residuals. After evaluating alternative approaches to handling its wastewater solids, the District is proceeding with the construction of facilities for handling MWRP solids, currently conveyed to Fountain Valley for treatment by OCSD, as well as solids from the District’s LAWRP. The solids handling capital project is underway and is anticipated to be completed in fiscal year 2017.

The Recycled Water System. In addition to the water reclamation facilities described under the preceding subheading, the recycled water system consists of a dual system for distribution of the recycled water, primarily for irrigation, and seasonal storage to allow production in the low-demand winter season for use in the high-demand summer season. These facilities presently include the District’s Sand Canyon, Rattlesnake Canyon, and San Joaquin Reservoirs, which are recycled water reservoirs with capacities of 750 acre feet, 1,100 acre feet, and 2,500 acre feet respectively. In addition to the future expansion of reclamation capacity, based on demand as described above relative to the wastewater system, the District plans to increase seasonal storage capacity. At this time, the expansion

of Syphon Reservoir is being evaluated for that purpose. The cost of the Syphon expansion or a comparable seasonal storage project is included in the proposed sewer plans of works. As stated above, the recycled water system regional and local costs comprise a part of regional and local sewer costs under the plans of works.

Enhancement and Replacement. Apart from the ongoing system expansion and completion that will continue to buildout, the District has incorporated in its system planning efforts the updating of its infrastructure to meet the needs of existing and future customers. These system enhancement efforts will include capital projects that provide service cost savings and projects that provide reliability or redundancy beyond that necessary to satisfy the District's policy for basic reliability. Replacement and refurbishment improvements consist of repairs and restoration to existing water, recycled water and sewer system facilities. The District presently funds enhancement and replacement costs from reserves set aside for that purpose with contributions from user rates, general 1% tax levy revenues and other sources. The District may also evaluate the funding of enhancement and replacement costs through the improvement districts to the extent authorized general obligation bonds are available for such purposes and the enhancement and replacement costs are allocable among improvement districts and other funding sources in a fair and equitable manner.

SECTION 2 IMPROVEMENT DISTRICT NO. 253

2.1 DESCRIPTION OF THE STUDY AREA

ID No. 253, as originally formed, represented the majority of the territory of ID No. 1 of the former Santiago County Water District, the area extending northward from Loma Ridge to the Fremont Canyon area. As a result of the current reorganization of ID No. 253, the land included in the improvement district consists of planned future development areas in portions of former ID No. 253 as well as planned future developments within other former improvement districts (principally former ID Nos. 230 and 250) that have been added to ID No. 253 by annexation. Areas of former ID No. 253 that contained permanent open space, including approximately 13,400 acres near the Lomas de Santiago ridgeline, have been excluded. The location of the reorganized ID No. 253 is shown in **Figure I-1**. The resulting ID No. 253 is a developing improvement district that will function in tandem with existing ID Nos. 212 (former MCAS El Toro), 213 (former MCAS Tustin) and 288 (Portola) and new ID No. 285, where development is underway, to provide equitable regional capital cost sharing by the District's developing areas.

To simplify the text of this report, "north" refers to "Irvine north" running parallel to Sand Canyon Avenue. North arrows on exhibits show true north.

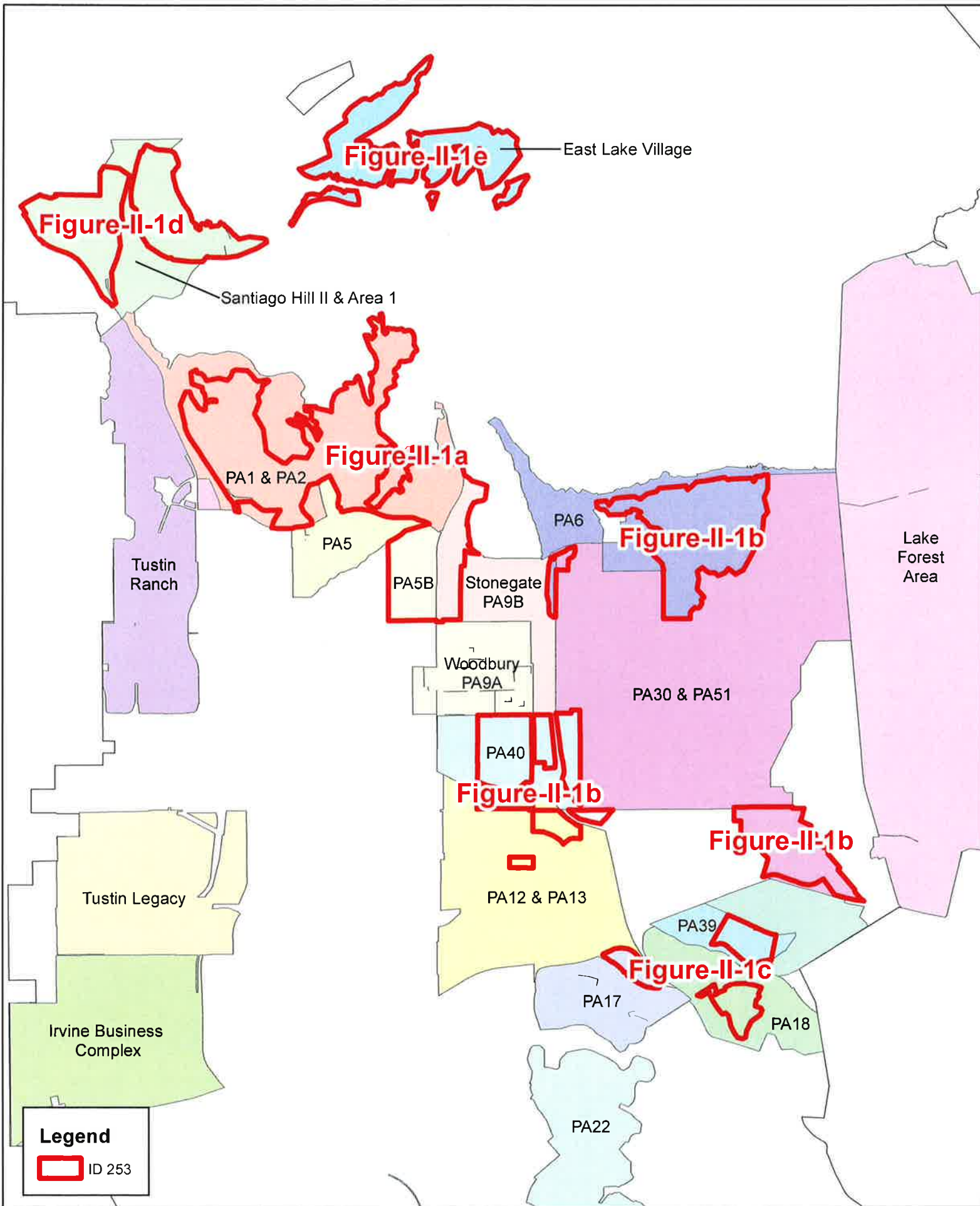
2.2 LAND USE AND DEVELOPMENT PHASING

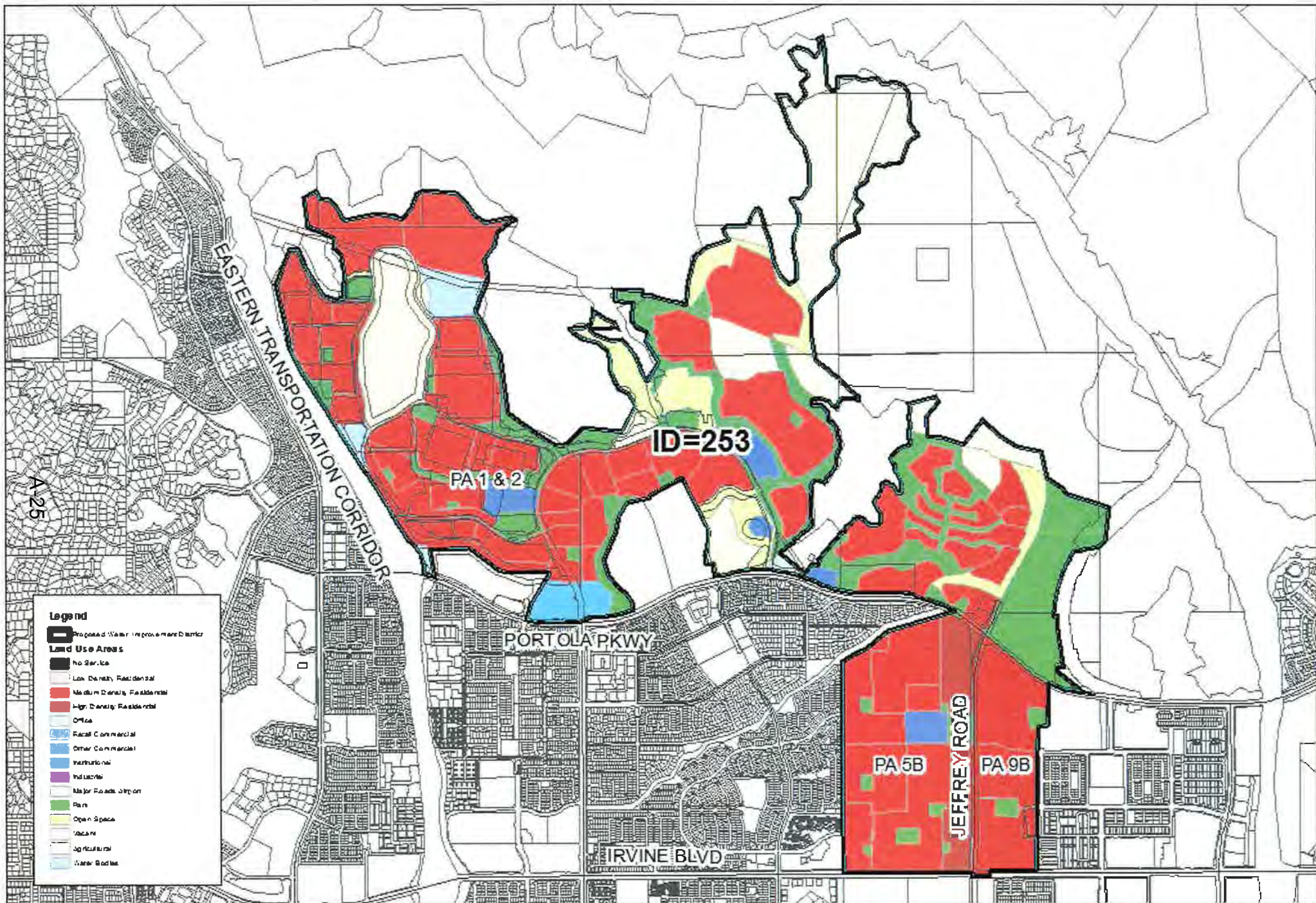
Land Use. The District expects future development of the reorganized ID No. 253 to be predominantly residential with other uses, and expects development in ID No. 253 to continue through at least 2035.

Figure II-1 shows the boundaries of reorganized ID No. 253, encompassing about _____ acres.

The reorganized ID No. 253 includes portions of the following planned development areas, as indicated on **Figures II-1a – II-1j**:

- Planning Areas 1 and 2 (north of Portola Parkway, between the Eastern Transportation Corridor and Jeffrey Road);
- Planning Areas 5B, 8A, and 9A and Spectrum 8 (north of the former MCAS El Toro to Portola Parkway and the Foothill Transportation Corridor, and west to Jeffrey Road);
- Planning Area 6 – (southeast of the intersection of the Eastern Transportation Corridor and the Foothill Transportation Corridor);

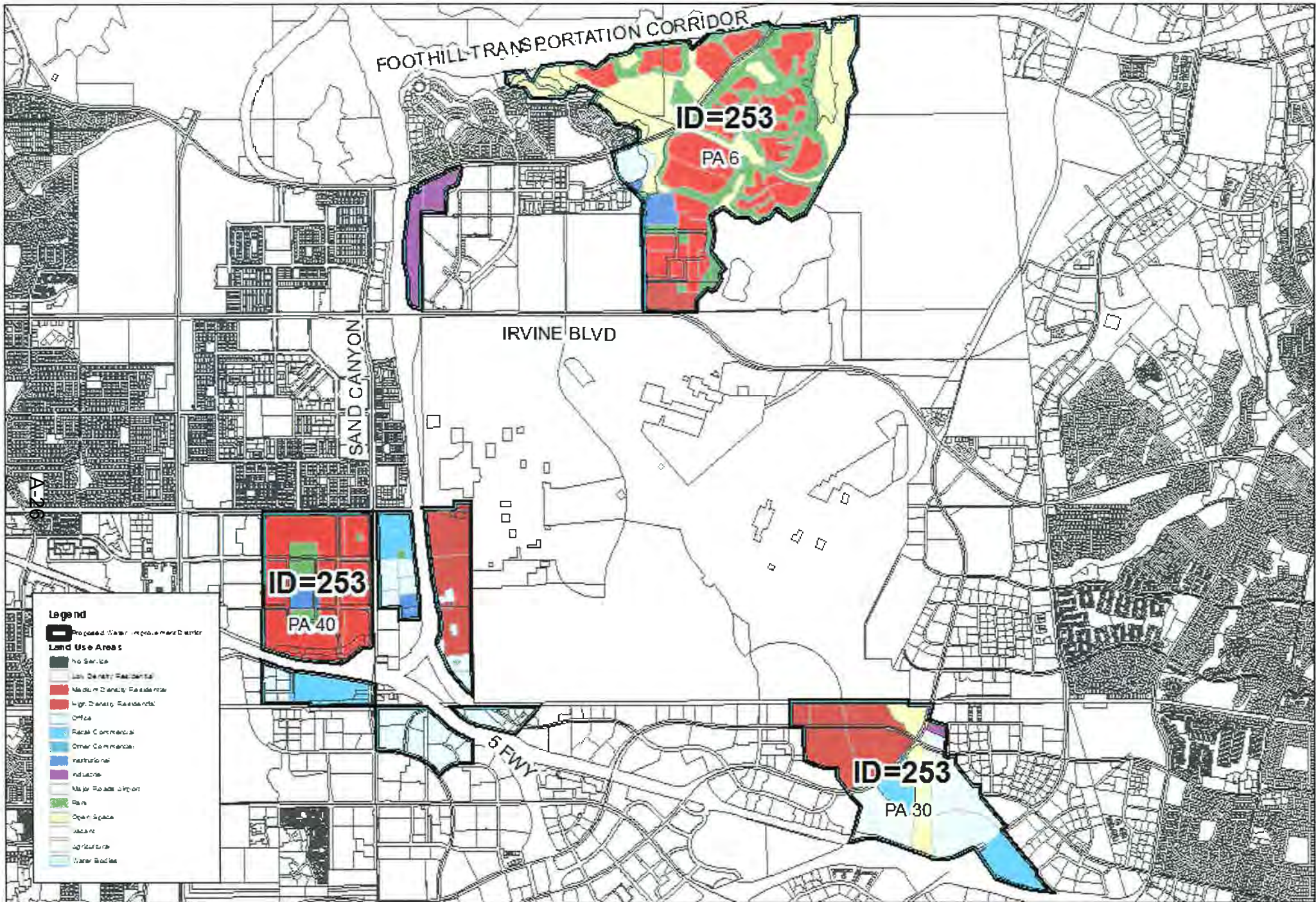




**IRVINE RANCH
WATER DISTRICT**

**SEWER IMPROVEMENT DISTRICT 253
PLANNING AREAS 1, 2, 5B, AND 9B PROPOSED LAND USE**

FIGURE-II-1a

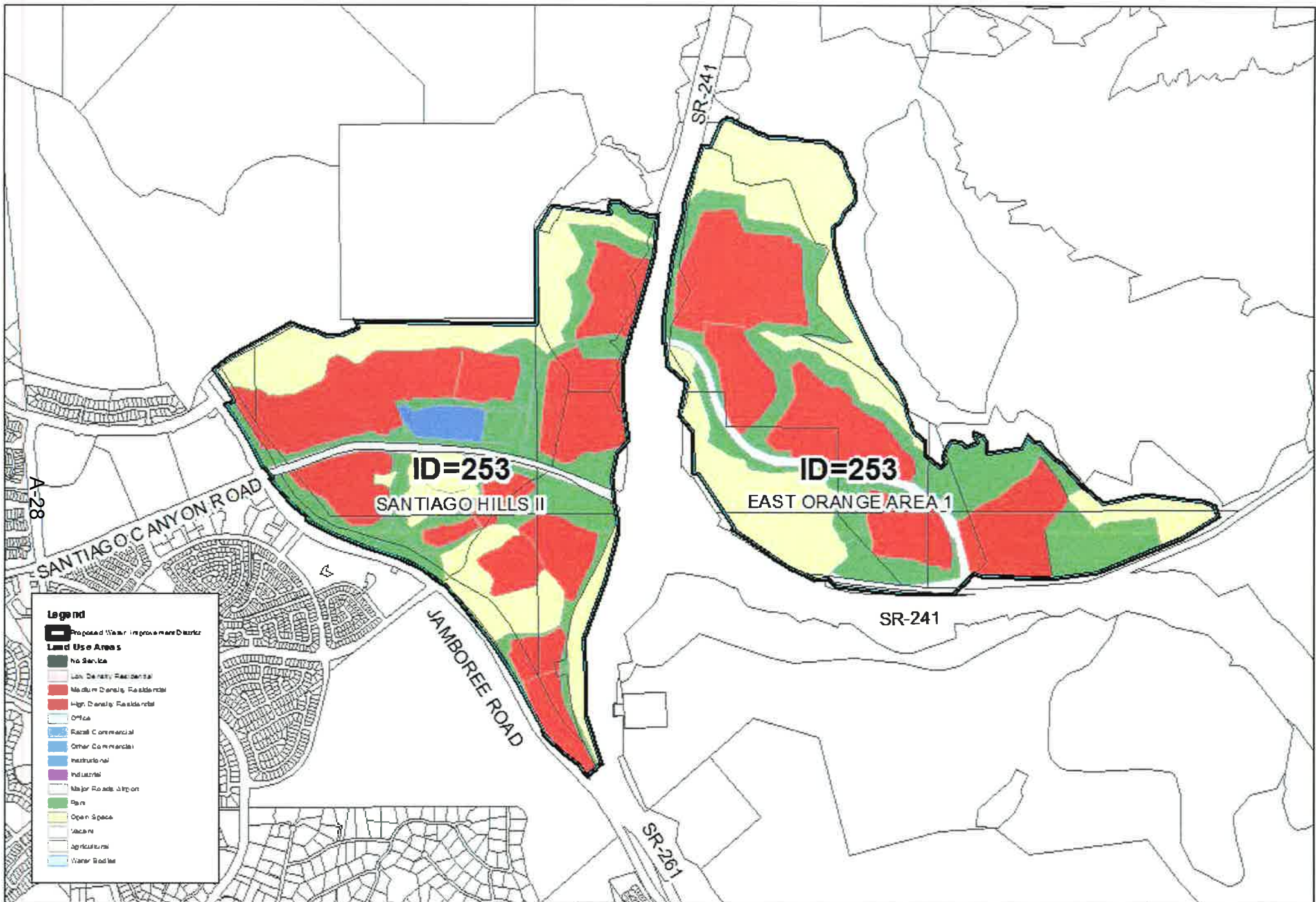


**IRVINE RANCH
WATER DISTRICT**

**SEWER IMPROVEMENT DISTRICT 253
PA 6, PA 30, PA 40, PA 51 PROPOSED LAND USE**

FIGURE-II-1b





A-29

IRVINE LAKE

ID=253

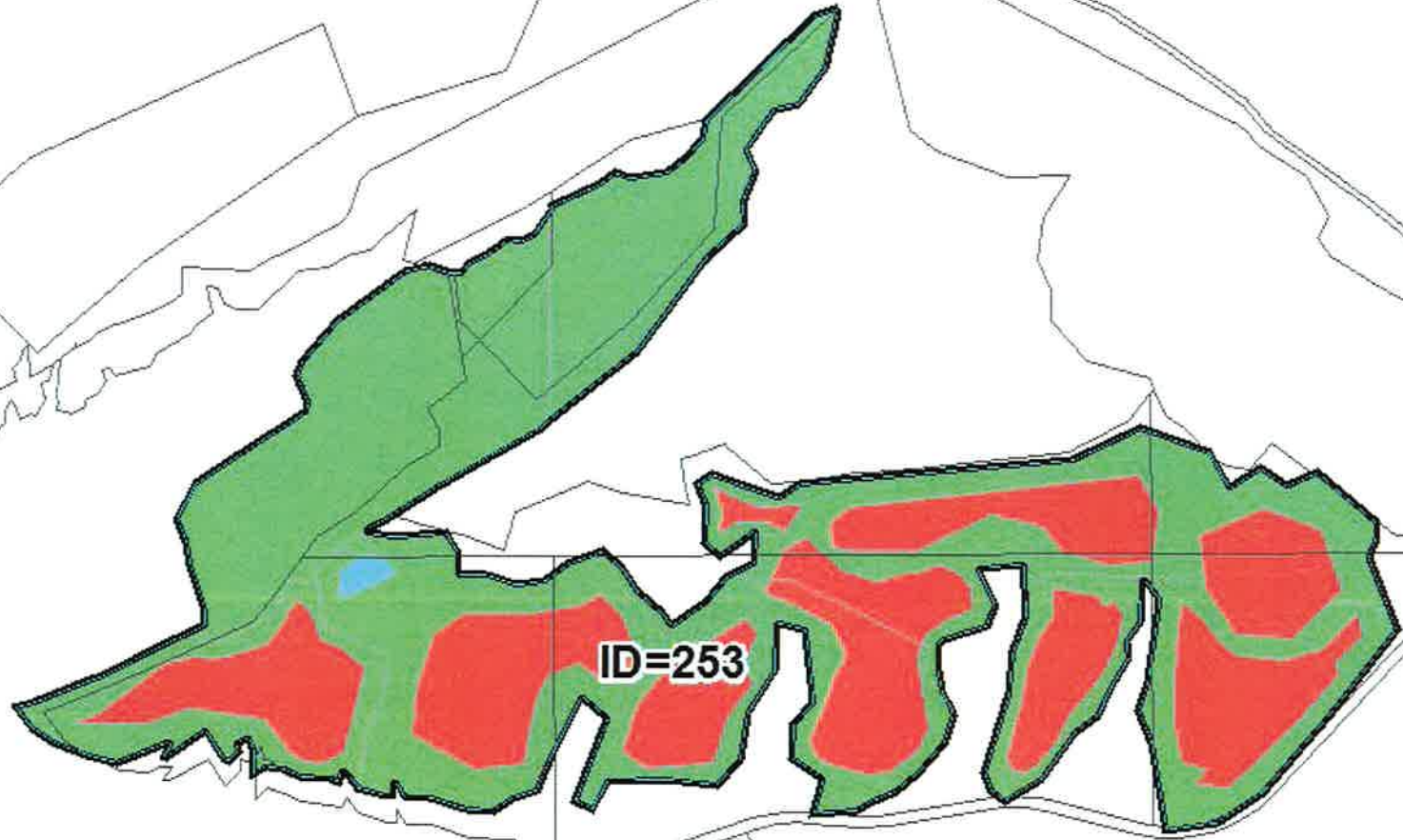
SANTIAGO CANYON ROAD

Legend

Proposed Sewer Improvement District

Land Use Areas

- no service
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Office
- Retail Commercial
- Other Commercial
- Institutional
- Industrial
- Major Roadway Right-of-Way
- Park
- Open Space
- Vacant
- Agricultural
- Water Bodies



IRVINE RANCH
WATER DISTRICT

SEWER IMPROVEMENT DISTRICT 253 EAST LAKE VILLAGE AREA

FIGURE-II-1e

- Planning Areas 9B and 9C (bounded by Portola Parkway, SR-133, Irvine Boulevard and Jeffrey Road, and between Sand Canyon Avenue and SR-133 south to Trabuco Road);
- Planning Area 17 (Quail Hill) (southwest of the intersection of I-405 and SR-133);
- Planning Areas 30 and 51 (northwest of the intersection of I-5 and SR-133);
- Planning Area 39 (south of Irvine Center Drive, between I-405 and Bake Parkway);
- Planning Area 40 (at the intersection of I-405 and the Eastern Transportation Corridor, generally bounded by Trabuco Road, Future O Street, OCTA Metrolink Railroad and Jeffrey Road);
- Santiago Hills II and East Orange Area 1 (east of Jamboree Road and north of the intersection of SR-241/Santiago Canyon Road and SR-261); supplemented by Santiago Hills Integration Study? Not here – need in facilities section?
- East Orange General Plan (“Lake Village” -- north of Santiago Canyon Road and southeast of Irvine Lake; also includes Santiago Hills II and East Orange Area 1).
- Add PA 18

Development Phasing. This Plan of Works follows and incorporates the phasing used in the subarea master plans applicable to the various planned development areas.

Phasing of development is subject to change. Depending upon real estate markets, city planning decisions and other factors, some phases or portions of phases could occur simultaneously rather than sequentially. The phasing of bond issues, discussed in Section 5, has been selected to allow reasonable flexibility in phasing priorities.

2.3 DEMAND AND PEAKING FACTORS

Demand Factors. **Table II-1** contains a 2012 updated table from the IRWD Water Resources Master Plan (WRMP), summarizing the District’s standard interior and exterior water use factors. The District employs the local interior water use factors, shown in the table, as its sewer duty factors. The irrigation demand factors are also shown in **Table II-1**. The factors listed in **Table II-1** were used to develop **Tables II-2 and II-3**.

Peaking Factors. Water peaking factors, applied in calculating potable water demands, and recycled water peaking factors, applied in calculating irrigation demands, are as set forth in the WRMP. Sewage peaking factors, applied in calculating sewer flows, are as set forth in the Sewage Collection System Plan.

Table II-1: Water Use and Sewer Factors (September 2012)

| Code | Land Use Description | Land Use Agency | Land Use Density | | Local Demands | | | Irrigation Demands | |
|-------------|------------------------------------|-----------------|------------------|-------------------------|---------------------------|------------------|-------------|----------------------------|-------------------|
| | | | Average | Units | Local - Interior (Sewer) | Local - Exterior | Total Local | % Irrigated Area | Irrigation Factor |
| 1100 | <u>Residential</u> | | | | <u>Gal/DU/Day</u> | | | <u>Gal/Acre/Day</u> | |
| 1111 | Rural Density | Orange | 0.3 | du/acre | 250 | 170 | 420 | 0% | 1,000 |
| 1112 | Rural Density | Irvine | 0.3 | du/acre | 250 | 750 | 1,000 | 5% | 2,800 |
| 1115 | Rural Density | County | 0.26 | du/acre | 300 | 350 | 650 | 5% | 2,800 |
| 1121 | Estate Density | Orange | 1.2 | du/acre | 300 | 350 | 650 | 5% | 2,800 |
| 1122 | Estate Density | Irvine | 0.5 | du/acre | 300 | 225 | 525 | 5% | 2,800 |
| 1126 | Estate Density | Lake Forest | 0.5 | du/acre | 300 | 350 | 650 | 7% | 3,000 |
| 1131 | Low Density | Orange | 4 | du/acre | 300 | 350 | 650 | 8% | 2,500 |
| 1132 | Low Density | Irvine | 3 | du/acre | 225 | 180 | 405 | 16% | 2,200 |
| 1133 | Low Density | Newport Beach | 1 | du/acre | 290 | 220 | 510 | 17% | 2,800 |
| 1134 | Low Density PC | Tustin | 4.5 | du/acre | 450 | 1,550 | 2,000 | 17% | 2,800 |
| 1135 | Suburban Density | County | 9.25 | du/acre | 165 | 95 | 260 | 15% | 2,500 |
| 1136 | Low Density | Lake Forest | 3 | du/acre | 270 | 150 | 420 | 20% | 2,800 |
| 1141 | Low-Medium Density | Orange | 10.5 | du/acre | 235 | 145 | 380 | 15% | 2,500 |
| 1146 | Low-Medium Density | Lake Forest | 11 | du/acre | 205 | 150 | 355 | 10% | 3,000 |
| 1153 | Medium-Low Density | Newport Beach | 2.75 | du/acre | 400 | 350 | 750 | 10% | 2,800 |
| 1161 | Medium Density | Orange | 19.5 | du/acre | 200 | 150 | 350 | 15% | 2,800 |
| 1162 | Medium Density | Irvine | 7.5 | du/acre | 200 | 100 | 300 | 15% | 2,800 |
| 1163 | Medium Density | Newport Beach | 5 | du/acre | 225 | 205 | 430 | 20% | 2,800 |
| 1164 | Medium Density PC | Tustin | 11.8 | du/acre | 155 | 95 | 250 | 15% | 2,800 |
| 1166 | Medium Density | Lake Forest | 7.5 | du/acre | 140 | 60 | 200 | 15% | 2,800 |
| 1172 | Medium-High Density | Irvine | 17.5 | du/acre | 130 | 30 | 160 | 22% | 2,400 |
| 1175 | Urban Density | County | 29 | du/acre | 140 | 45 | 185 | 20% | 2,800 |
| 1176 | Medium-High Density | Lake Forest | 17.5 | du/acre | 145 | 70 | 215 | 17% | 2,500 |
| 1182 | High Density | Irvine | 32.5 | du/acre | 130 | 13 | 143 | 20% | 2,800 |
| 1183 | High Density | Newport Beach | 12.25 | du/acre | 115 | 10 | 125 | 20% | 3,200 |
| 1184 | High Density PC | Tustin | 17.4 | du/acre | 115 | 10 | 125 | 15% | 2,800 |
| 1186 | High Density | Lake Forest | 32.5 | du/acre | 115 | 10 | 125 | 20% | 2,800 |
| 1191 | High Rise Density | Orange | 35 | du/acre | 115 | 10 | 125 | 20% | 2,800 |
| 1192 | High Rise Density | Irvine | 40 | du/acre | 115 | 10 | 125 | 20% | 2,800 |
| 1200 | <u>Commercial</u> | | | | <u>Gal/KSF/Day</u> | | | <u>Gal/Acre/Day</u> | |
| 1210 | General Office | | 20 | ksf/acre | 62 | 10 | 72 | 20% | 2,500 |
| 1221 | Community Commercial | | 9 | ksf/acre | 142 | 33 | 175 | 20% | 3,500 |
| 1222 | Regional Commercial | | 10 | ksf/acre | 130 | 10 | 140 | 20% | 3,500 |
| 1230 | Commercial Recreation | | 8 | ksf/acre | 41 | 20 | 61 | 30% | 3,000 |
| 1235 | Hotel | | 45 | rooms/acre | 110 | 50 | 160 | 30% | 2,800 |
| 1240 | Institutional | | 8 | ksf/acre | 30 | 15 | 45 | 30% | 2,750 |
| 1244 | Hospital | | 9 | ksf/acre | 165 | 65 | 230 | 30% | 2,850 |
| 1260 | School | | 10 | ksf/acre | 20 | 8.0 | 28.0 | 50% | 2,500 |
| 1261 | UCI | | 10 | ksf/acre | 215 | 15 | 230 | 40% | 3,800 |
| 1273 | Military Air Field | | 0 | ksf/acre | 0 | 0 | 0 | 0% | 0 |
| 1290 | Hotel | | 45 | rooms/acre | 110 | 50 | 160 | 30% | 2,800 |
| 1300 | Industrial | | 9.091 | | 600 | 25 | 625 | 20% | 2,800 |
| 1310 | Industrial - Light | | 18 | ksf/acre | 60 | 10 | 70 | 20% | 2,800 |
| 1320 | Industrial - Heavy | | 25 | ksf/acre | 2,000.0 | 18 | 2,018 | 20% | 2,800 |
| | <u>Open Space and Other</u> | | | | | | | <u>Gal/Acre/Day</u> | |
| 1411 | Airports | | 0 | acre/acre | 0 | 0 | 0 | 0% | 0 |
| 1413 | Freeways & Major Road | | 0 | acre/acre | 0 | 0 | 0 | 0% | 0 |
| 1820 | Community Park | | 1 | acre/acre | 0 | 0 | 0 | 86% | 2,200 |
| 1830 | Regional Park | | 1 | acre/acre | 0 | 0 | 0 | 75% | 2,200 |
| 1840 | Fuel Modification Zone | | 1 | acre/acre | 0 | 0 | 0 | 100% | 1,000 |
| 1850 | Wildlife Preserve | | 0 | acre/acre | 0 | 0 | 0 | 0% | 0 |
| 1880 | Open Space (Rec) | | 0 | acre/acre | 0 | 0 | 0 | 0% | 0 |
| 1900 | Vacant | | 1 | acre/acre | 0 | 0 | 0 | 0% | 0 |
| 4100 | Water | | 0 | | 0 | 0 | 0 | 0% | 0 |
| 2000 | <u>Agriculture</u> | | | <u>acre/acre</u> | | | | <u>Gal/Acre/Day</u> | |
| 2100 | Low-Irrigated AG Potable | | 1 | acre/acre | 0 | 0 | 0 | 80% | 1,800 |
| 2110 | Low-Irrigated AG Untreated | | 1 | acre/acre | 0 | 0 | 0 | 80% | 1,800 |
| 2120 | Low-Irrigated AG Recycled | | 1 | acre/acre | 0 | 0 | 0 | 80% | 1,800 |
| 2200 | High-Irrigated AG Potable | | 1 | acre/acre | 0 | 0 | 0 | 80% | 3,100 |
| 2210 | High-Irrigated AG Untreated | | 1 | acre/acre | 0 | 0 | 0 | 80% | 3,100 |
| 2220 | High-Irrigation AG Recycled | | 1 | acre/acre | 0 | 0 | 0 | 80% | 3,100 |

09/18/13 DRAFT

2.4 SEWAGE GENERATION – IMPROVEMENT DISTRICT

Sewage Generation. Table II-2 tabulates the average daily wastewater flow within the reorganized ID No. 253 service area, using the District's *demand forecasting tool*.

[INSERT AGGREGATED ID SEWER DEMANDS TABLE GENERATED FROM FORECASTING TOOL]

09/18/13 DRAFT

[INSERT AGGREGATED ID SEWER DEMANDS TABLE GENERATED FROM FORECASTING TOOL]

2.5 RECYCLED WATER DEMAND - IMPROVEMENT DISTRICT

Recycled Water Demand. Table II-3 tabulates the average daily recycled water use within the ID No. 253 service area, using the District's *demand forecasting tool*.

[INSERT ID 253 RW DEMANDS TABLE GENERATED FROM FORECASTING TOOL]

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[INSERT ID 253 RW DEMANDS TABLE GENERATED FROM FORECASTING TOOL]

SECTION 3 REGIONAL FACILITIES

3.1 DESCRIPTION

Through the reorganization consolidation process, 10 of IRWD's 18 sewer improvement districts will be consolidated into a single improvement district, containing both lands where development is essentially completed, as well as certain remaining lands proposed for development that are also included in reorganized ID No. 253, newly formed 285 and existing 288. Existing ID Nos. 1(201), 212, 213, 240, 252 and 256 are not included in the reorganization or consolidation actions. Regional sewer and recycled water project costs will continue to be allocated to each sewer improvement district based on that improvement district's pro-rata share of the ultimate IRWD wastewater and recycled water demands.

Under the District's methodology for achieving equitable cost allocation, the improvement districts will continue to be allocated proportional shares of regional system project costs until the regional systems are complete; individual improvement districts are not relieved of that obligation although they may receive service through the regional systems prior to their completion. This incremental funding approach also recognizes that at any point in time prior to full buildout, a portion of the cost of the development of the regional systems has been borne by ad valorem assessments on lands not yet fully developed and receiving service.

For purposes of maintaining equity in facilities cost allocation, IRWD employs multiple treated water regional splits. For example, one regional split may include all IDs; another may include some IDs and exclude one or more IDs (sometimes referred to as a "sub-regional split"). In the latter instance, that split is applied to the cost of all projects that provide no benefit to the excluded improvement district(s); an improvement district would be included only in the regional splits for the projects from which it does derive benefit.

In this Plan of Works, the appropriate regional split has been applied to existing and proposed wastewater collection and treatment and recycled water supply, storage and distribution facilities needed to provide an adequate and reliable wastewater and recycled water system meeting the ultimate needs of ID No. 253.

Periodically, IRWD revises its sewer improvement district regional allocation to reflect changes in demand factors, land use planning, phasing of planned development and other factors which may influence wastewater treatment and recycled water demands, either within a specific improvement district or throughout IRWD. Revised regional splits are applied prospectively. The regional cost allocations known as regional splits are calculated based on IRWD's internal wastewater and recycled water demand forecasting tool.

3.2 COST ESTIMATES AND REGIONAL ALLOCATION

Based on total IRWD sewage generation, the demands of ID No. 253 as calculated by the District's demand forecasting tool would yield a regional allocation of 9.6%. Based on a total IRWD recycled water demands, the demands of ID No. 253 as calculated by the District's demand forecasting tool would yield a regional allocation of 10.3%.

A description and cost estimate of the proposed regional wastewater and recycled water facilities share allocated to ID No. 253 is shown in **Table III-1**.

As noted in the Introduction, the projects identified here may change to reflect changes in land use and development phasing. For purposes of determining the allowance for deferred costs, the project costs have been escalated at 10% per year.

Table III-1 Regional Projects Proposed Facilities and Estimated Escalated Costs Improvement District 253

| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|---------------|--|----------------------------|---------|---------------------|-----------|-----------|-----------|-----------|
| 20113 | OCSD CORF 12/13 | Regional | 9.6% | \$35,640 | \$35,640 | \$0 | \$0 | \$0 |
| 20114 | OCSD CORF 13/14 | Regional | 9.6% | \$202,643 | \$202,643 | \$0 | \$0 | \$0 |
| 20115 | OCSD CORF 14/15 | Regional | 9.6% | \$238,111 | \$186,425 | \$51,685 | \$0 | \$0 |
| 20116 | OCSD CORF 15/16 | Regional | 9.6% | \$254,379 | \$0 | \$254,379 | \$0 | \$0 |
| 20117 | OCSD CORF 16/17 | Regional | 9.6% | \$332,146 | \$0 | \$332,146 | \$0 | \$0 |
| 20118 | OCSD CORF 17/18 | Regional | 9.6% | \$437,771 | \$0 | \$437,771 | \$0 | \$0 |
| 20119 | OCSD CORF 18/19 | Regional | 9.6% | \$351,140 | \$0 | \$351,140 | \$0 | \$0 |
| A-38 20120 | OCSD CORF 19/20 | Regional | 9.6% | \$414,994 | \$0 | \$323,194 | \$91,800 | \$0 |
| 20214 | MWRP EXPANSION PHASE II | Regional | 9.6% | \$4,731 | \$4,731 | \$0 | \$0 | \$0 |
| 20356 | OCSD CORF 20/21 | Regional | 9.6% | \$476,739 | \$0 | \$0 | \$476,739 | \$0 |
| 20357 | OCSD CORF 21/22 | Regional | 9.6% | \$536,888 | \$0 | \$0 | \$536,888 | \$0 |
| 20358 | OCSD CORF 22/23 | Regional | 9.6% | \$597,464 | \$0 | \$0 | \$597,464 | \$0 |
| 20360 | OCSD CORF 23/24 | Regional | 9.6% | \$664,899 | \$0 | \$0 | \$664,899 | \$0 |
| 20362 | OCSD CORF 24/25 | Regional | 9.6% | \$739,755 | \$0 | \$0 | \$574,046 | \$165,709 |
| 20468 | FOOTHILL SEWER DIVERSION TO LAW RP | Regional | 9.6% | \$108,894 | \$17,330 | \$91,564 | \$0 | \$0 |
| 20540 | LONG TERM SEWER SYSTEM FLOW MONITORING | Regional | 9.6% | \$40,355 | \$19,011 | \$21,344 | \$0 | \$0 |
| 20587 | OCSD EQUITY 12/13 | Regional | 9.6% | \$0 | \$0 | \$0 | \$0 | \$0 |
| 20588 | OCSD EQUITY 13/14 | Regional | 9.6% | \$11 | \$11 | \$0 | \$0 | \$0 |
| 20589 | OCSD EQUITY 14/15 | Regional | 9.6% | \$133,619 | \$85,958 | \$47,660 | \$0 | \$0 |
| 20593 | OCSD EQUITY 15/16 | Regional | 9.6% | \$208,663 | \$0 | \$208,663 | \$0 | \$0 |
| 20621 | OCSD EQUITY 16/17 | Regional | 9.6% | \$243,520 | \$0 | \$243,520 | \$0 | \$0 |

| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|---------------|---------------------------------------|----------------------------|---------|------------------------|-------------|-------------|-----------|-----------|
| 20715 | OCSD EQUITY 17/18 | Regional | 9.6% | \$586,328 | \$0 | \$586,328 | \$0 | \$0 |
| 20716 | OCSD EQUITY 18/19 | Regional | 9.6% | \$655,351 | \$0 | \$655,351 | \$0 | \$0 |
| 20717 | OCSD EQUITY 19/20 | Regional | 9.6% | \$658,965 | \$0 | \$421,840 | \$237,126 | \$0 |
| 20718 | OCSD EQUITY 20/21 | Regional | 9.6% | \$442,887 | \$0 | \$0 | \$442,887 | \$0 |
| 20719 | OCSD EQUITY 21/22 | Regional | 9.6% | \$281,822 | \$0 | \$0 | \$281,822 | \$0 |
| 20720 | OCSD EQUITY 22/23 | Regional | 9.6% | \$159,892 | \$0 | \$0 | \$159,892 | \$0 |
| 20733 | OCSD EQUITY 23/24 | Regional | 9.6% | \$176,186 | \$0 | \$0 | \$176,186 | \$0 |
| 20734 | OCSD EQUITY 24/25 | Regional | 9.6% | \$194,160 | \$0 | \$0 | \$123,800 | \$70,360 |
| 20798 | OCSD EQUITY 25/26 | Regional | 9.6% | \$206,874 | \$0 | \$0 | \$0 | \$206,874 |
| 20799 | OCSD EQUITY 26/27 | Regional | 9.6% | \$188,047 | \$0 | \$0 | \$0 | \$188,047 |
| 20802 | OCSD CORF 25/26 | Regional | 9.6% | \$822,527 | \$0 | \$0 | \$0 | \$822,527 |
| 20803 | OCSD CORF 26/27 | Regional | 9.6% | \$913,004 | \$0 | \$0 | \$0 | \$913,004 |
| A-39 20811 | OCSD SOLIDS HANDLING 13/14 | Regional | 4.1% | \$57,421 | \$57,421 | \$0 | \$0 | \$0 |
| 20812 | OCSD SOLIDS HANDLING 14/15 | Regional | 4.1% | \$69,507 | \$69,507 | \$0 | \$0 | \$0 |
| 20959 | SEWER GEN SYS MODS 14/15 | Regional | 9.6% | \$32,037 | \$32,037 | \$0 | \$0 | \$0 |
| 21055 | ENG PLANNING STUDY RESERVE 13/14 | Regional | 9.6% | \$18,174 | \$18,174 | \$0 | \$0 | \$0 |
| 21056 | ENG PLANNING STUDY RESERVE 14/15 | Regional | 9.6% | \$19,991 | \$19,991 | \$0 | \$0 | \$0 |
| 21057 | ENG PLANNING STUDY RESERVE 15/16 | Regional | 9.6% | \$21,997 | \$0 | \$21,997 | \$0 | \$0 |
| 21096 | GIS SUPPORT APPLICATIONS 13/14 | Regional | 9.6% | \$6,357 | \$6,357 | \$0 | \$0 | \$0 |
| 21097 | GIS SUPPORT APPLICATIONS 14/15 | Regional | 9.6% | \$6,993 | \$6,993 | \$0 | \$0 | \$0 |
| 21129 | HYDRAULIC MODELING 13/14 | Regional | 9.6% | \$4,657 | \$4,657 | \$0 | \$0 | \$0 |
| 21131 | HYDRAULIC MODELING 14/15 | Regional | 9.6% | \$5,123 | \$5,123 | \$0 | \$0 | \$0 |
| 21133 | UNIVERSITY LS ODOR CONTROL SYSTEM | Regional | 9.6% | \$26,970 | \$26,970 | \$0 | \$0 | \$0 |
| 21134 | MANHOLE CONST MAIN AND SKY PARK SOUTH | Regional | 9.6% | \$5,143 | \$5,143 | \$0 | \$0 | \$0 |
| 21146 | MWRP BIOSOLIDS AND ENERGY RECOVERY | Regional | 4.1% | \$10,310,431 | \$4,461,454 | \$5,848,977 | \$0 | \$0 |
| 21147 | LAWRP SYSTEM UPGRADES | Regional | 9.6% | \$77,658 | \$43,341 | \$34,317 | \$0 | \$0 |

| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|---------------|---|----------------------------|---------|---------------------|-----------|-------------|-------------|-----------|
| 21248 | MWRP EXPANSION PHASE 3 | Regional | 9.6% | \$2,872,925 | \$0 | \$1,477,330 | \$1,395,595 | \$0 |
| 21339 | AUTOMATION SYSTEM IMPROVEMENTS SEWER | Regional | 9.6% | \$13,926 | \$8,826 | \$5,100 | \$0 | \$0 |
| 21455 | IRWD PIPELINES RELOCATION FOR SC GRADE | Regional | 9.6% | \$32,141 | \$32,141 | \$0 | \$0 | \$0 |
| 21578 | OPS CENTER IMPROVEMENTS PH2 (WAREHOUSE) | Regional | 9.6% | \$164,100 | \$0 | \$164,100 | \$0 | \$0 |
| 21655 | SKYLIGHT PROTECTION | Regional | 9.6% | \$3,696 | \$3,696 | \$0 | \$0 | \$0 |
| 21742 | LTFP ID CONSOLIDATION | Regional | 9.6% | \$8,233 | \$8,233 | \$0 | \$0 | \$0 |
| 30214 | MWRP EXPANSION PHASE II | Regional | 10.3% | \$3,784 | \$3,784 | \$0 | \$0 | \$0 |
| 30331 | IRVINE LAKE SEISMIC STABILITY STUDY | Regional | 10.3% | \$3,104 | \$3,104 | \$0 | \$0 | \$0 |
| 30342 | LAWRP SYSTEM UPGRADES | Regional | 10.3% | \$115,042 | \$61,890 | \$53,152 | \$0 | \$0 |
| 30374 | SYPHON RESERVOIR INTERIM IMPROVEMENTS | Regional | 10.3% | \$21,391 | \$21,391 | \$0 | \$0 | \$0 |
| 30380 | SALT MANAGEMENT PLAN DEVELOPMENT | Regional | 10.3% | \$12,486 | \$12,486 | \$0 | \$0 | \$0 |
| 30382 | SYPHON RESERVOIR EXPANSION | Regional | 10.3% | \$10,130,256 | \$270,609 | \$9,859,647 | \$0 | \$0 |
| A-40 30396 | RW SITE INSPECTION & TESTING COMPUTER | Regional | 10.3% | \$5,620 | \$5,620 | \$0 | \$0 | \$0 |
| 30398 | RW CONVERSION GRANTS FOR ON-SITE 13/14 | Regional | 10.3% | \$28,404 | \$28,404 | \$0 | \$0 | \$0 |
| 30399 | RW CONVERSION FOR OFF-SITE 13/14 | Regional | 10.3% | \$16,564 | \$16,564 | \$0 | \$0 | \$0 |
| 30400 | HEALTH DEPT FEES FOR 13/14 | Regional | 10.3% | \$9,619 | \$9,619 | \$0 | \$0 | \$0 |
| 30408 | MULTI-ZONE REGIONAL PS - ZONE A TO SYPHON | Regional | 10.3% | \$422,032 | \$41,190 | \$380,842 | \$0 | \$0 |
| 30412 | SYPHON RESERVOIR EXPANSION - ENV. | Regional | 10.3% | \$25,978 | \$12,241 | \$13,737 | \$0 | \$0 |
| 30415 | CATHODIC PROTECTION FOR GAP PIPE SEGMENT | Regional | 10.3% | \$13,789 | \$13,789 | \$0 | \$0 | \$0 |
| 30418 | MWRP MBR LEAP AERATION CONVERSION | Regional | 10.3% | \$132,458 | \$0 | \$132,458 | \$0 | \$0 |
| 30422 | PA9 JEFFREY RD PIPELINES, 36" ZNA, 36" SYPHON | Regional | 10.3% | \$177,416 | \$177,416 | \$0 | \$0 | \$0 |
| 30517 | LAKE FOREST CONTROL AND TELEMTRY SYS | Regional | 10.3% | \$4,045 | \$4,045 | \$0 | \$0 | \$0 |
| 31055 | ENG PLANNING STUDY RESERVE 13/14 | Regional | 10.3% | \$19,997 | \$19,997 | \$0 | \$0 | \$0 |
| 31056 | ENG PLANNING STUDY RESERVE 14/15 | Regional | 10.3% | \$21,997 | \$21,997 | \$0 | \$0 | \$0 |
| 31057 | ENG PLANNING STUDY RESERVE 15/16 | Regional | 10.3% | \$24,204 | \$0 | \$24,204 | \$0 | \$0 |
| 31096 | GIS SUPPORT APPLICATIONS 13/14 | Regional | 10.3% | \$6,821 | \$6,821 | \$0 | \$0 | \$0 |

| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|-------------|---|----------------------------|---------|------------------------|--------------------|---------------------|--------------------|--------------------|
| 31097 | GIS SUPPORT APPLICATIONS 14/15 | Regional | 10.3% | \$7,503 | \$7,503 | \$0 | \$0 | \$0 |
| 31129 | HYDRAULIC MODELING 13/14 | Regional | 10.3% | \$4,997 | \$4,997 | \$0 | \$0 | \$0 |
| 31131 | HYDRAULIC MODELING 14/15 | Regional | 10.3% | \$5,496 | \$5,496 | \$0 | \$0 | \$0 |
| 31248 | MWRP EXPANSION PHASE 3 | Regional | 10.3% | \$1,945,134 | \$0 | \$974,851 | \$970,283 | \$0 |
| 31339 | AUTOMATION SYSTEM IMPROVEMENTS RW | Regional | 10.3% | \$27,332 | \$17,321 | \$10,011 | \$0 | \$0 |
| 31384 | HYDRAULIC MODEL UPDATE / CALIBRATION - | Regional | 10.3% | \$50,809 | \$50,809 | \$0 | \$0 | \$0 |
| 31578 | OPS CENTER IMPROVEMENTS PH2 (WAREHOUSE) | Regional | 10.3% | \$176,065 | \$0 | \$176,065 | \$0 | \$0 |
| 31582 | GEN SYS MODS 13/14 | Regional | 10.3% | \$6,628 | \$6,628 | \$0 | \$0 | \$0 |
| 31648 | GEN SYS MODS 14/15 | Regional | 10.3% | \$7,291 | \$7,291 | \$0 | \$0 | \$0 |
| 31655 | SKYLIGHT PROTECTION | Regional | 10.3% | \$3,966 | \$3,966 | \$0 | \$0 | \$0 |
| 31697 | GEN SYS MODS 15/16 | Regional | 10.3% | \$8,023 | \$0 | \$8,023 | \$0 | \$0 |
| | | | | \$38,504,132 | \$6,196,792 | \$23,211,393 | \$6,729,426 | \$2,366,521 |

A-41

SECTION 4 LOCAL MASTER PLAN FACILITIES

4.1 DESCRIPTION

The facilities detailed in the following section represent local facilities serving one or more of the planned development areas within the improvement district, based on the respective subarea master plans, as well as sub-regional facilities serving this improvement district and another improvement district(s). For the purposes of this Plan of Works, local facilities include both local and sub-regional facilities.

4.2 COST ESTIMATES

The proposed local master plan facilities for ID No. 253 are detailed in **Table IV-1** and shown on **Figures IV-1** and **IV-1a - IV-1j** (sewer) and **IV-k – IV-t** (recycled water). (The figures, taken from the subarea master plans, show facilities both inside and outside of the improvement district boundary, and some of the facilities shown may have been constructed. The amounts contained in **Table IV-1** reflect the facilities or portions thereof allocable to the improvement district.) As noted in the Introduction, the projects identified here may change to reflect changes in land use and development phasing.

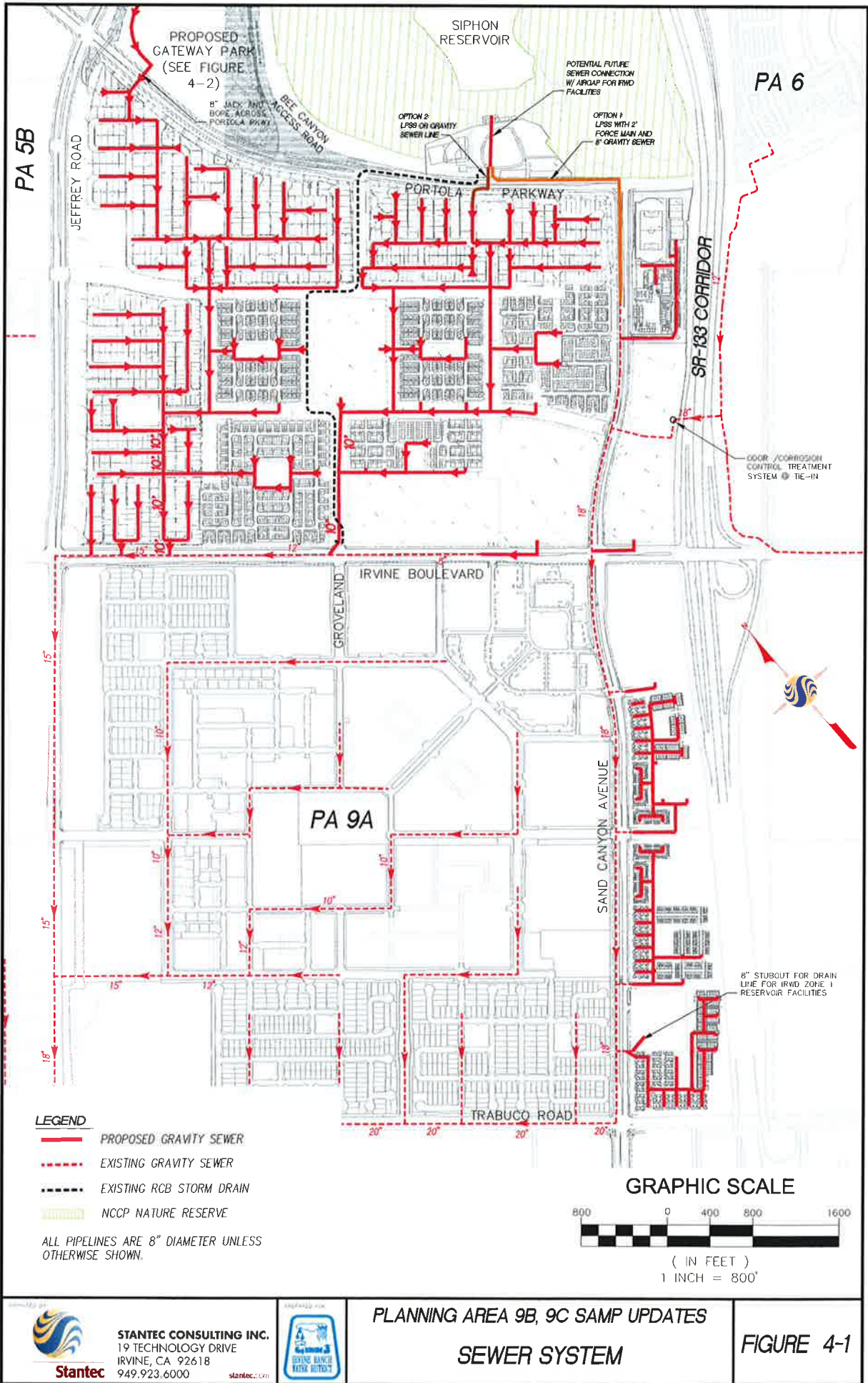
For the purpose of determining the allowance for deferred costs, the project costs have been escalated at 10% per year.

**Table IV-1 Local Projects
Proposed Facilities and Estimated Escalated Costs
Improvement District 253**

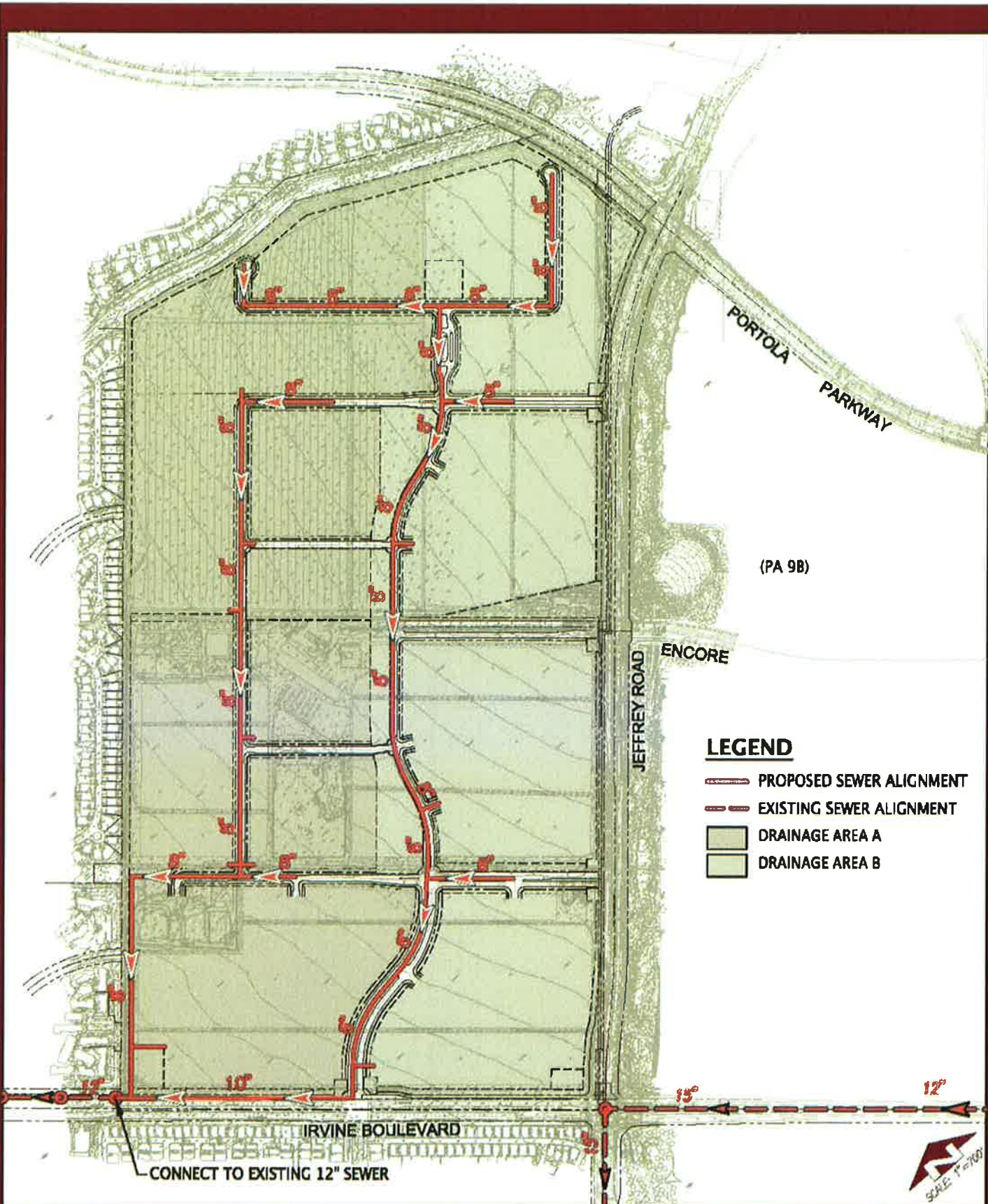
| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|-------------|---|----------------------------|---------|---------------------|-------------|-------------|-------------|-----------|
| 20425 | EAST ORANGE LAKE VILLAGE GRAVITY SEWER | Local | 100.0% | \$2,570,933 | \$0 | \$2,570,933 | \$0 | \$0 |
| 20426 | EAST ORANGE LAKE VILLAGE SEWER LIFT | Local | 100.0% | \$1,996,510 | \$0 | \$1,996,510 | \$0 | \$0 |
| 20427 | EAST ORANGE LAKE VILLAGE FORCE MAIN | Local | 100.0% | \$2,960,435 | \$0 | \$2,960,435 | \$0 | \$0 |
| 21125 | PA 9B SEWER IMPROVEMENTS | Local | 100.0% | \$990 | \$990 | \$0 | \$0 | \$0 |
| 21138 | SANTIAGO HILLS II SEWER FACILITIES | Local | 100.0% | \$5,898,108 | \$0 | \$838,143 | \$5,059,965 | \$0 |
| 21605 | PA 40 PHASE 3-5 SS FACILITIES | Sub-Regional | 79.0% | \$2,023,478 | \$0 | \$2,023,478 | \$0 | \$0 |
| 30144 | PA 5B RW PIPELINES | Local | 100.0% | \$943,159 | \$509,399 | \$433,760 | \$0 | \$0 |
| 30245 | PA1 SETTLERS RW PIPELINES - PHASE II | Local | 100.0% | \$1,086,607 | \$0 | \$1,083,392 | \$3,215 | \$0 |
| A-43 30246 | PA1 WOLF TRAIL RW PIPELINES - PHASE II | Local | 100.0% | \$881,703 | \$0 | \$879,131 | \$2,572 | \$0 |
| 30280 | PA9B PHASE 5 GATEWAY PARK RW PIPES | Local | 100.0% | \$729,399 | \$8,954 | \$720,445 | \$0 | \$0 |
| 30389 | PA9 JEFFREY RD PIPELINES, 16" ZONE B AND 6" | Local | 100.0% | \$467,170 | \$467,170 | \$0 | \$0 | \$0 |
| 30390 | PA 9B RW AND SYPHON LATERAL PIPELINE, | Sub-Regional | 10.3% | \$14,944 | \$14,944 | \$0 | \$0 | \$0 |
| 30409 | MULTI-ZONE REGIONAL PS - ZONE B | Sub-Regional | 75.4% | \$2,614,920 | \$270,451 | \$2,344,469 | \$0 | \$0 |
| 30410 | MULTI-ZONE REGIONAL PS - ZONE C | Sub-Regional | 72.5% | \$3,604,047 | \$336,545 | \$3,267,502 | \$0 | \$0 |
| 30416 | PA 40 PHASE 3B RW CAPITAL FACILITIES | Local | 100.0% | \$137,940 | \$137,940 | \$0 | \$0 | \$0 |
| 30446 | PA18 ZN B-C BPS | Local | 100.0% | \$1,696,024 | \$1,696,024 | \$0 | \$0 | \$0 |
| 30797 | PA6 RW PIPELINES | Local | 100.0% | \$928,222 | \$671,605 | \$256,617 | \$0 | \$0 |
| 31138 | SANTIAGO HILLS II RW FACILITIES | Local | 100.0% | \$8,929,298 | \$0 | \$774,810 | \$8,154,488 | \$0 |
| 31605 | PA 40 PHASE 2 RW FACILITIES | Local | 100.0% | \$678,923 | \$357,819 | \$321,104 | \$0 | \$0 |
| 31633 | PA 40 PHASE 3-5 RW FACILITIES | Sub-Regional | 79.0% | \$5,750,775 | \$0 | \$5,750,775 | \$0 | \$0 |
| 31640 | PA 39 PHASE 2 RW FACILITIES | Local | 100.0% | \$329,510 | \$0 | \$329,510 | \$0 | \$0 |
| 31641 | PA 18 SOUTH RW FACILITIES | Local | 100.0% | \$1,809,782 | \$958,914 | \$850,868 | \$0 | \$0 |

| Project No. | Project Title | Proj.Type (Reg / Local) | % Share | Total Escalated Amt | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 |
|-------------|--|-------------------------|---------|---------------------|--------------------|---------------------|---------------------|------------|
| 31739 | PA 18S HIDDEN CANYON 36" ZONE B & 8" ZONE | Local | 100.0% | \$268,950 | \$268,950 | \$0 | \$0 | \$0 |
| 32316 | EAST ORANGE AREA I PH3 ZNF RES (0.6MG) | Local | 100.0% | \$1,495,697 | \$0 | \$1,495,697 | \$0 | \$0 |
| 32322 | SANTIAGO HILLS ILP CONN/ZNF BPS | Local | 100.0% | \$3,526,437 | \$0 | \$3,526,437 | \$0 | \$0 |
| 32324 | SANTIAGO HILLS ZNF RES | Local | 100.0% | \$1,560,590 | \$0 | \$1,560,590 | \$0 | \$0 |
| 32331 | EAST ORANGE AREA I PH3 ILP CONN & ZONE F-G | Local | 100.0% | \$4,603,262 | \$0 | \$279,251 | \$4,324,011 | \$0 |
| | | | | \$57,507,813 | \$5,699,705 | \$34,263,856 | \$17,544,252 | \$0 |





A-44



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LEGEND

-  PROPOSED SEWER ALIGNMENT
-  EXISTING SEWER ALIGNMENT
-  DRAINAGE AREA A
-  DRAINAGE AREA B

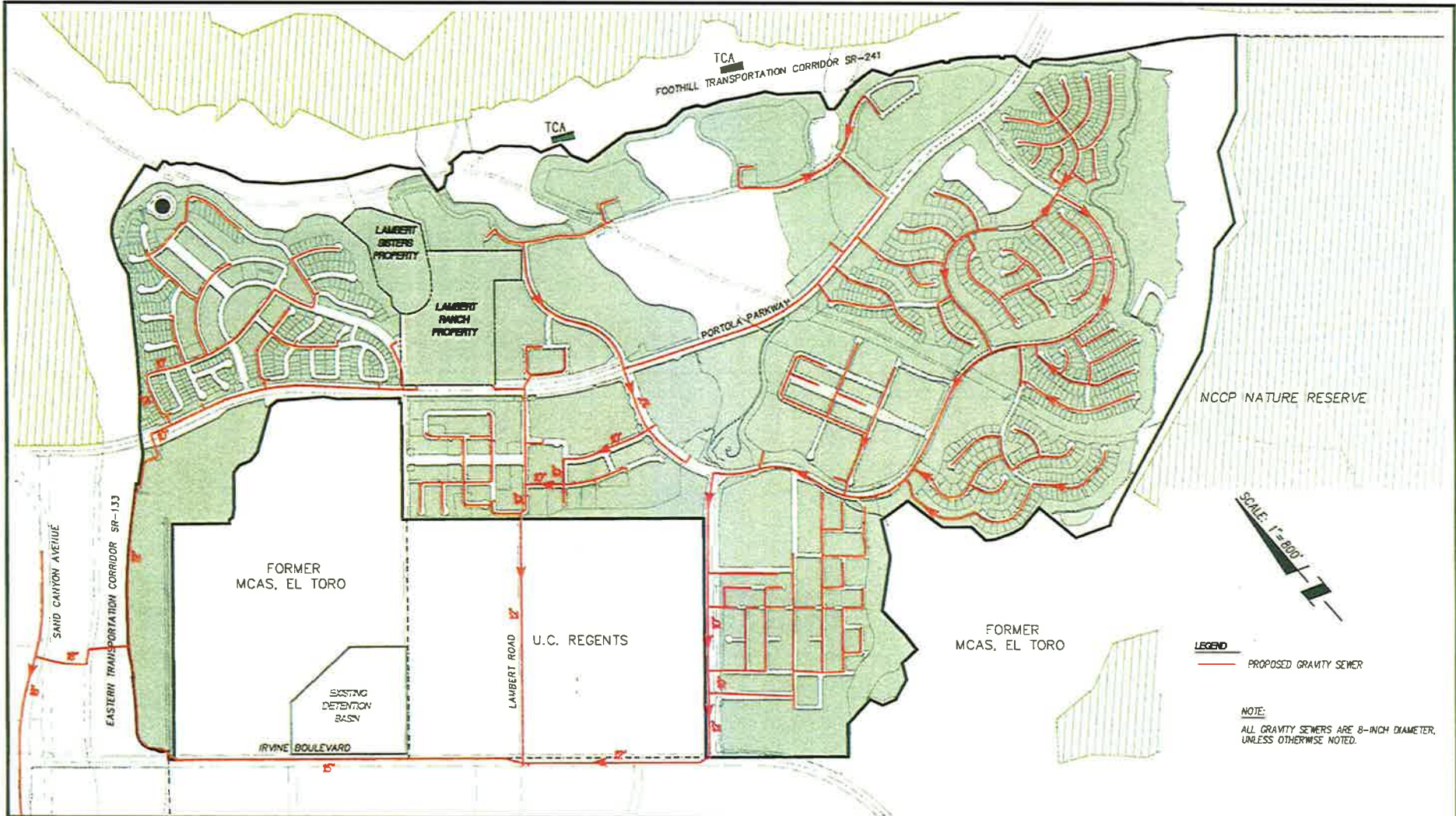


PA 5B SAMP UPDATE

SEWER COLLECTION SYSTEM

FIG 3

A-48



PREPARED BY
 **Tetterton & Associates**
 A Division of The Korte Companies
 19 TECHNOLOGY DRIVE
 IRVINE, CA 92618
 949.923.6277

PREPARED FOR:
 IRVINE RANCH
 WATER DISTRICT

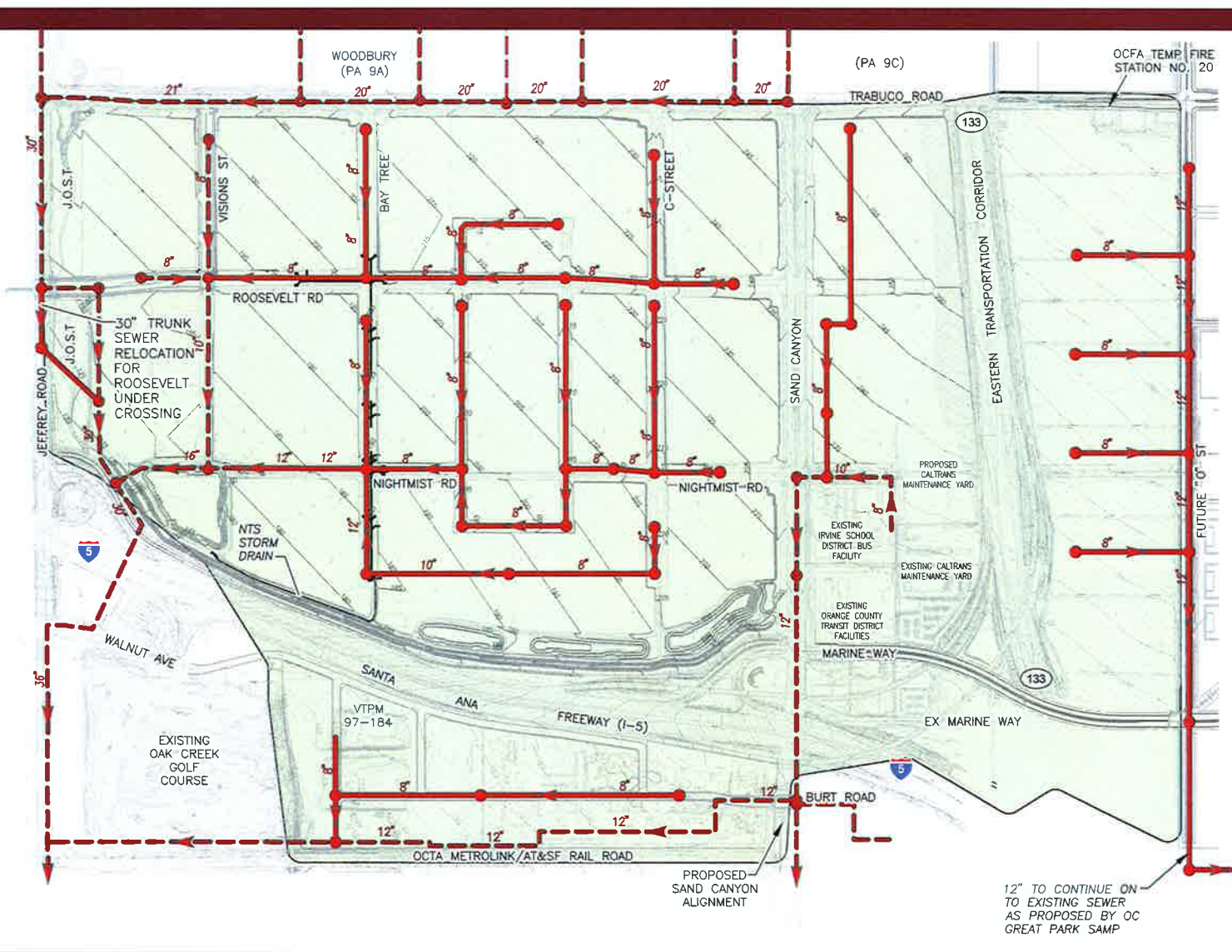

**PLANNING AREA 6 SAMP
 SEWER COLLECTION SYSTEM FACILITIES**

FIGURE 4-1

\\Tetterton\111010100\p01\PROJECTS\IWR\03\10_09

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A 40



ORANGE COUNTY GREAT PARK

LEGEND

- PROPOSED SEWER ALIGNMENT
- - - EXISTING SEWER ALIGNMENT

NOTE: ALL PIPES ARE 8" UNLESS OTHERWISE NOTED.



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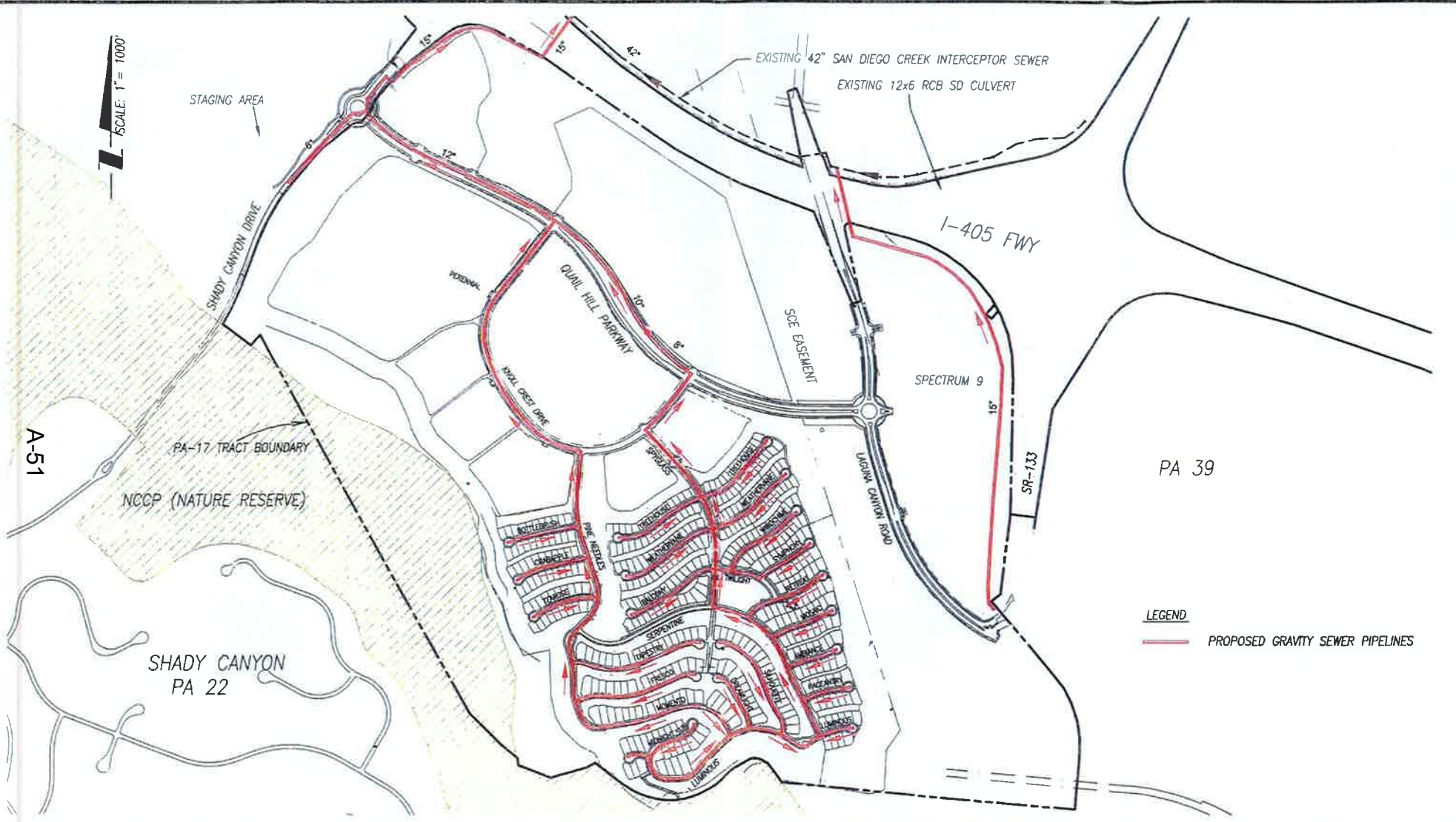


PREPARED FOR THE:
IRVINE RANCH
WATER DISTRICT

PLANNING AREA 40 SAMP

**SEWER COLLECTION
SYSTEM FACILITIES**





A-51

STAGING AREA

SCALE: 1" = 1000'

SHADY CANYON DRIVE

PA-17 TRACT BOUNDARY

NCCP (NATURE RESERVE)

SHADY CANYON
PA 22

EXISTING 42" SAN DIEGO CREEK INTERCEPTOR SEWER
EXISTING 12x6 RCB SD CULVERT

I-405 FWY

SCE EASEMENT

SPECTRUM 9

SR-133

PA 39

LEGEND

PROPOSED GRAVITY SEWER PIPELINES

The Keith Companies



PREPARED FOR:

IRVINE RANCH
WATER DISTRICT



QUAIL HILL (PA 17) SAMP
SEWER COLLECTION SYSTEM FACILITIES

FIG 4-1

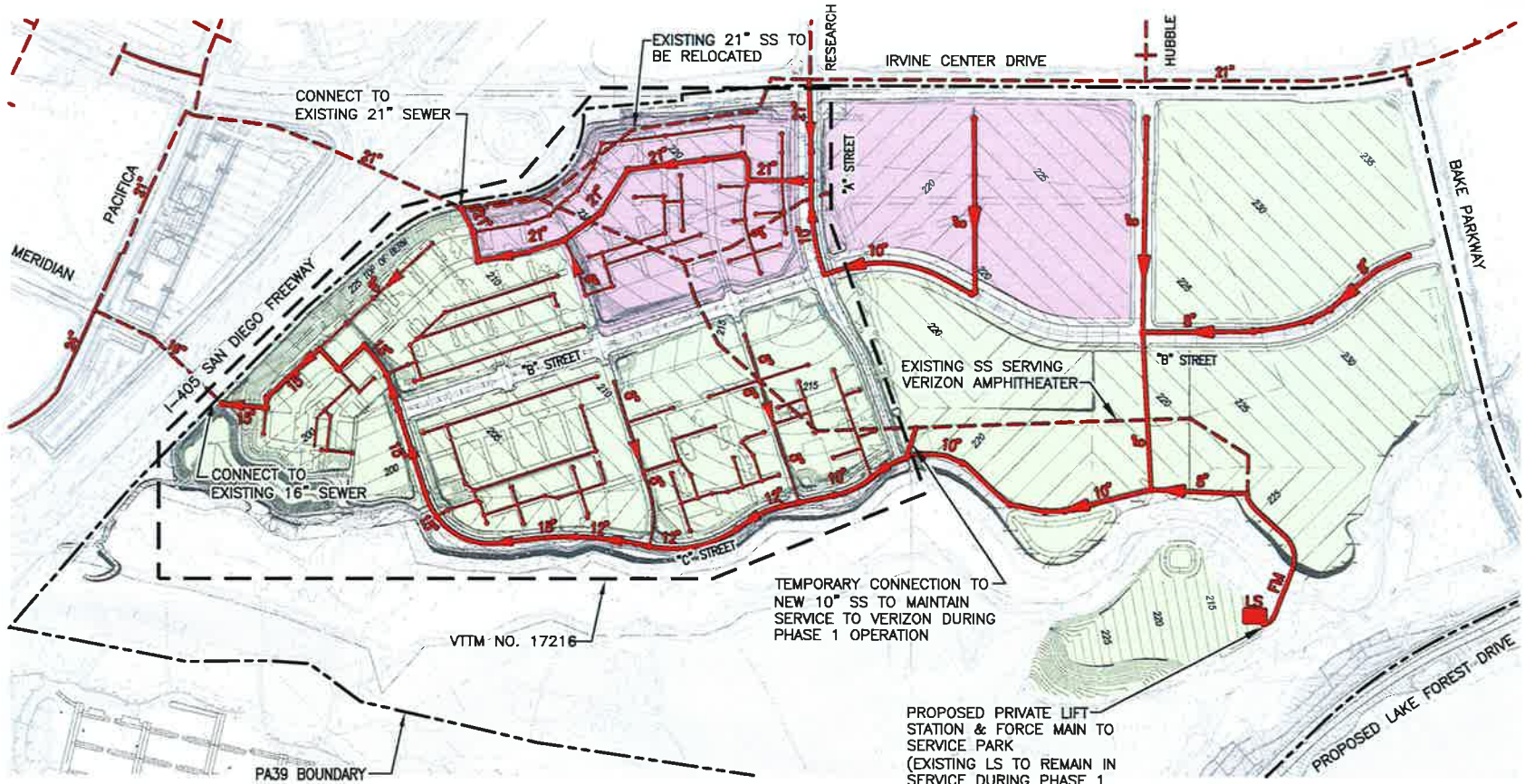
55 Red Hill Avenue, Costa Mesa, CA 92626 (714) 540-0800

REVISED 02/20/2003

QUAIL HILL SAMP

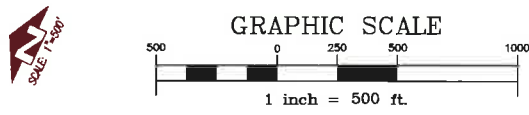
A-52

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PROPOSED PRIVATE LIFT STATION & FORCE MAIN TO SERVICE PARK (EXISTING LS TO REMAIN IN SERVICE DURING PHASE 1 OPERATION)

- LEGEND**
- PROPOSED BACKBONE SANITARY SEWER PIPELINE
 - PROPOSED IN-TRACT SANITARY SEWER PIPELINE
 - - - EXISTING SANITARY SEWER PIPELINE
 - SEWER DRAINAGE AREA "A"
 - SEWER DRAINAGE AREA "B"
- NOTE:**
ALL PIPES ARE 8-INCH UNLESS OTHERWISE NOTED.



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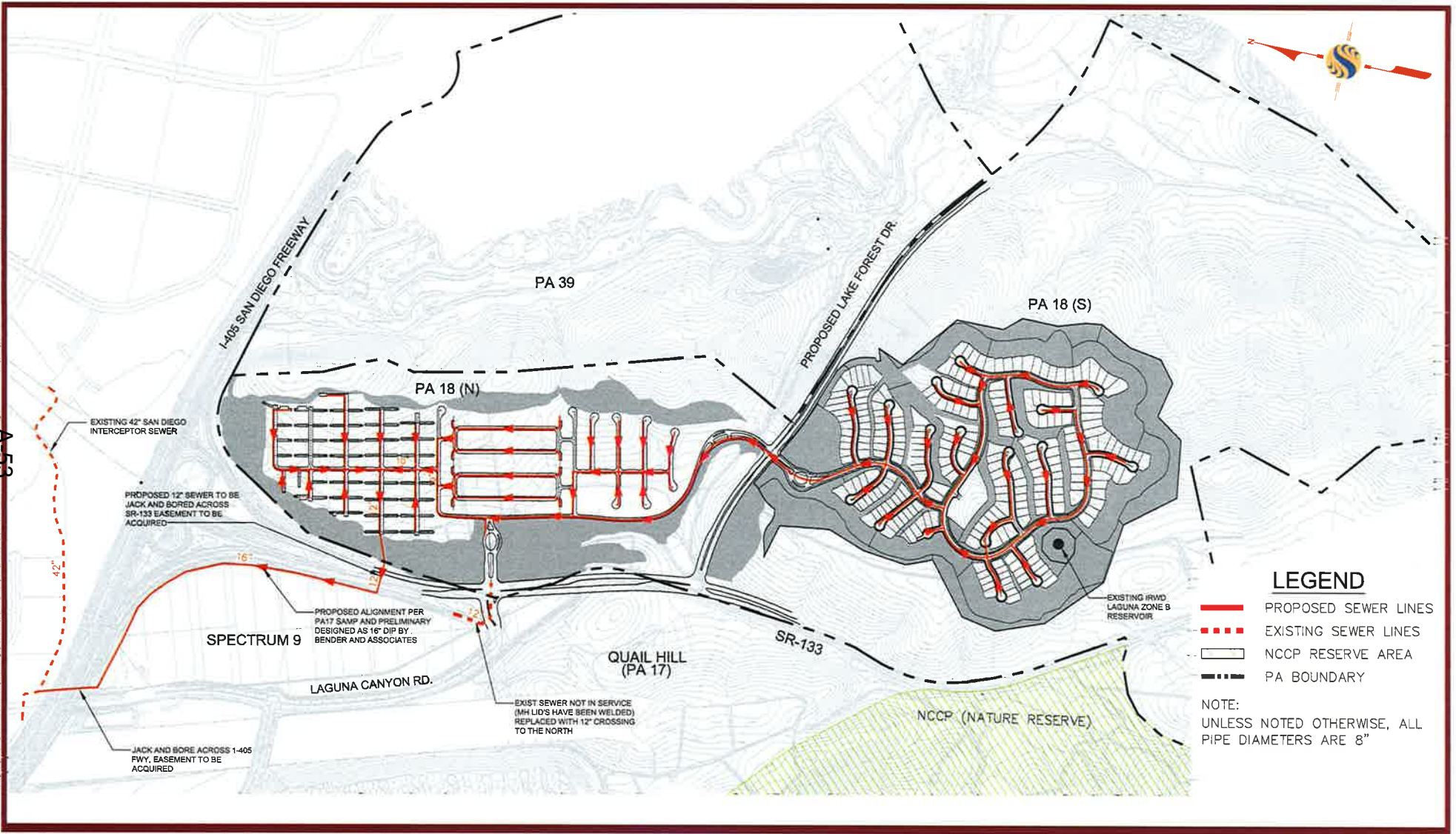
PREPARED FOR THE
IRVINE RANCH
WATER DISTRICT

PLANNING AREA 39 SAMP

**PROPOSED
SANITARY SEWER FACILITIES**



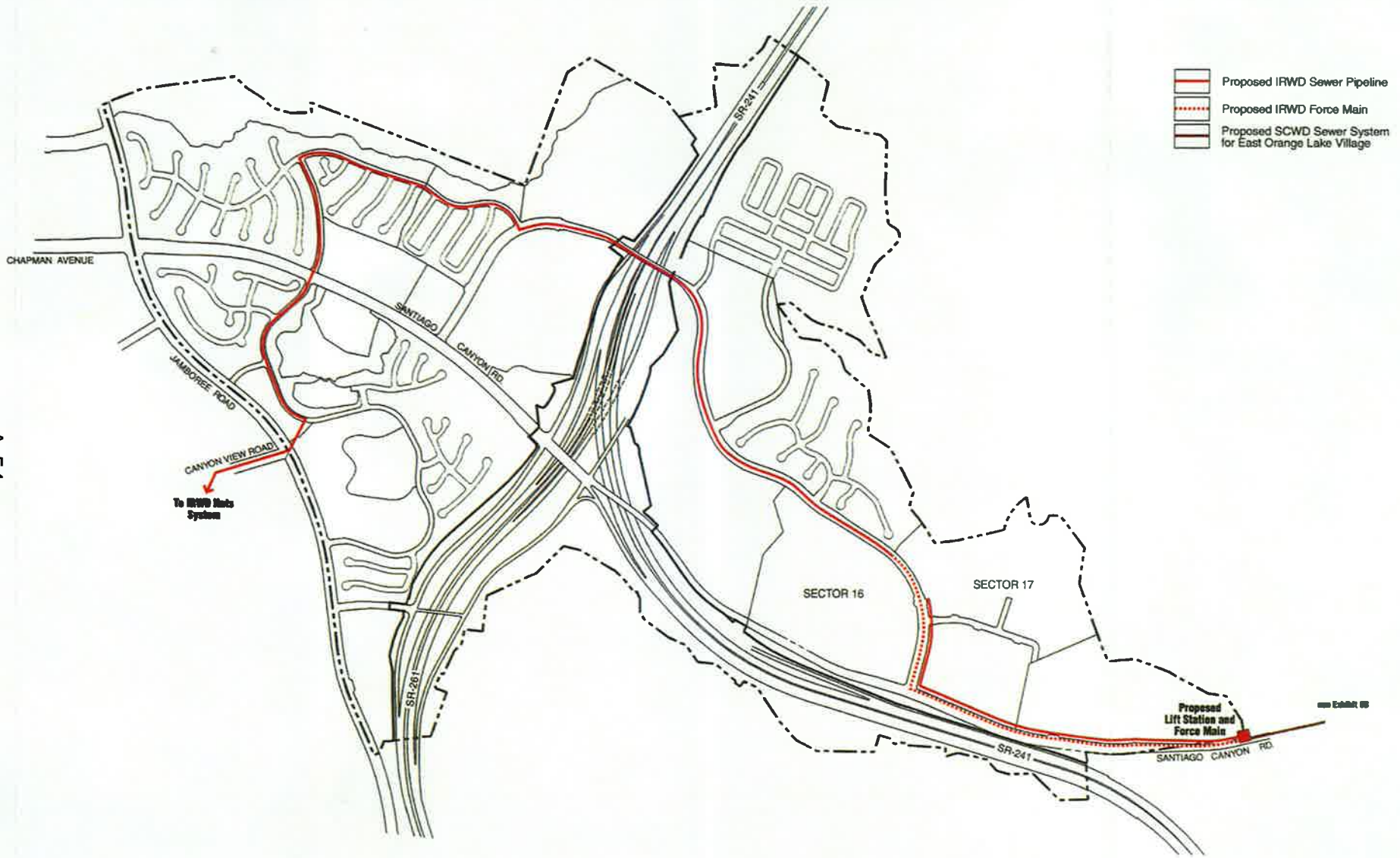
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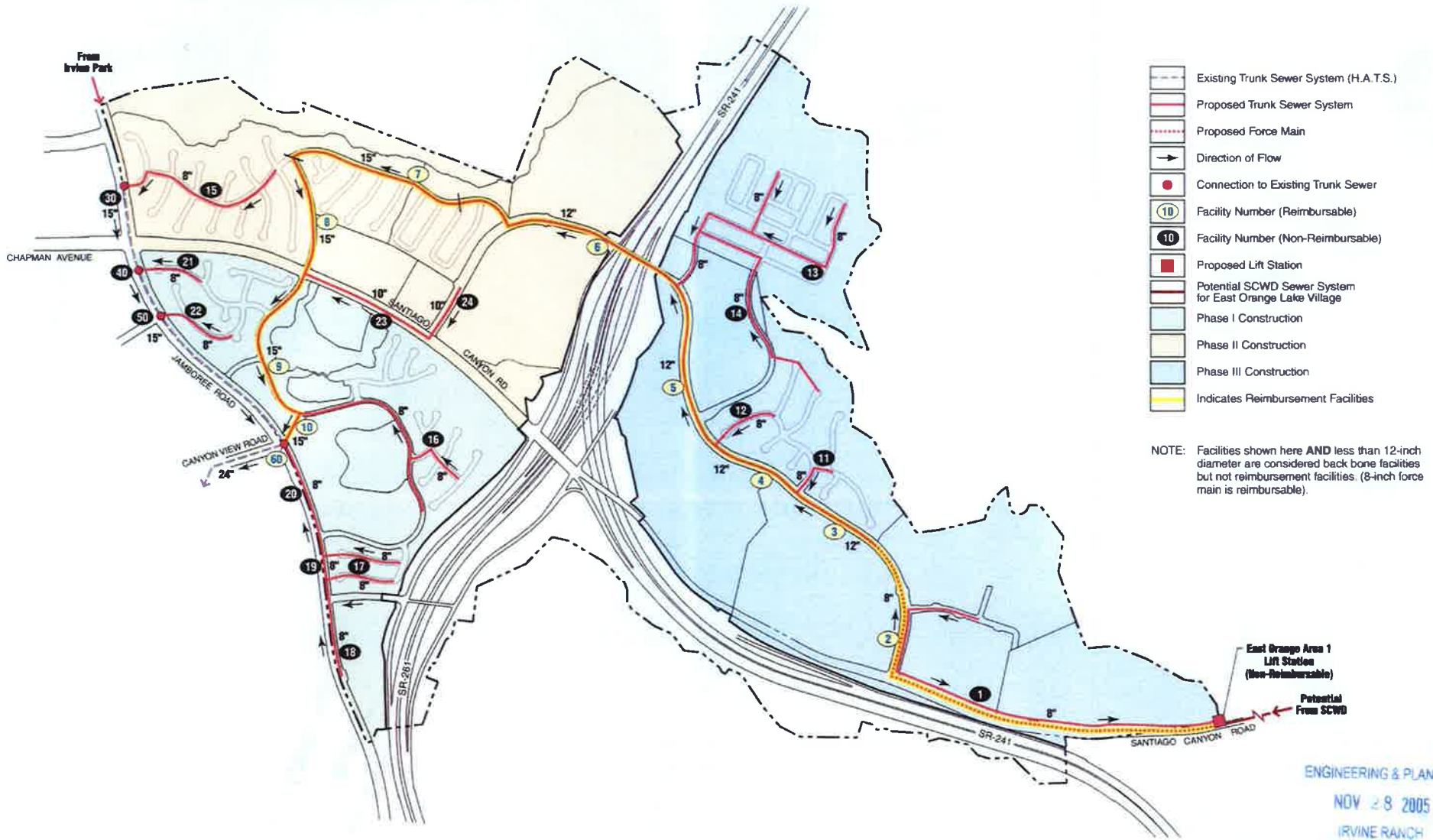
PLANNING AREA 18 SAMP UPDATE
PROPOSED WASTEWATER COLLECTION SYSTEM

FIGURE
4-1

A-54



A-55



- Existing Trunk Sewer System (H.A.T.S.)
- Proposed Trunk Sewer System
- Proposed Force Main
- Direction of Flow
- Connection to Existing Trunk Sewer
- Facility Number (Reimbursable)
- Facility Number (Non-Reimbursable)
- Proposed Lift Station
- Potential SCWD Sewer System for East Orange Lake Village
- Phase I Construction
- Phase II Construction
- Phase III Construction
- Indicates Reimbursement Facilities

NOTE: Facilities shown here AND less than 12-inch diameter are considered back bone facilities but not reimbursement facilities. (8-inch force main is reimbursable).

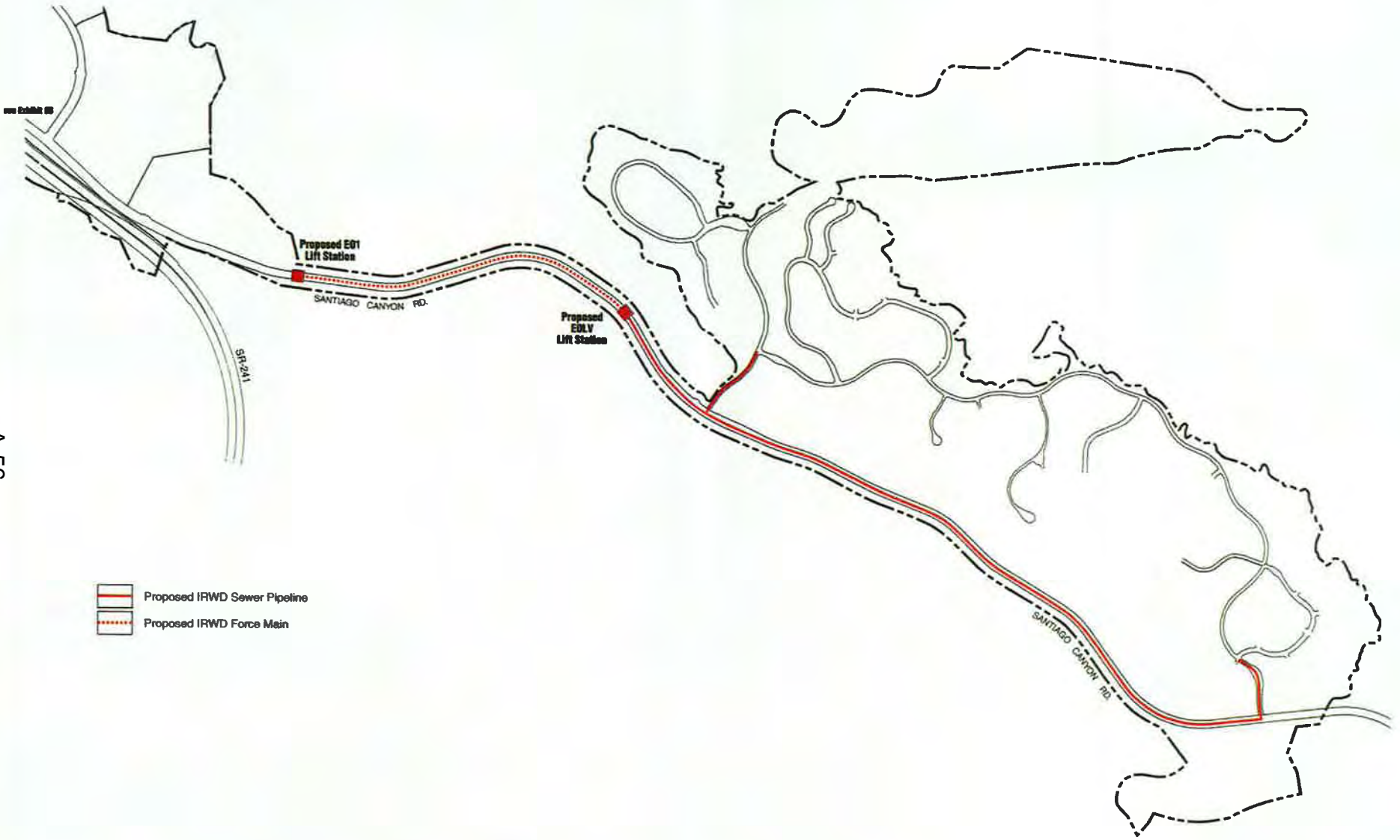
East Orange Area 1
LIR Station
(Non-Reimbursable)

Potential
From SCWD

ENGINEERING & PLANNING
NOV 28 2005
IRVINE RANCH
WATER DISTRICT

SANTIAGO HILLS II AND EAST ORANGE AREA I
EXHIBIT FOR REIMBURSEMENT AGREEMENT
Wastewater System

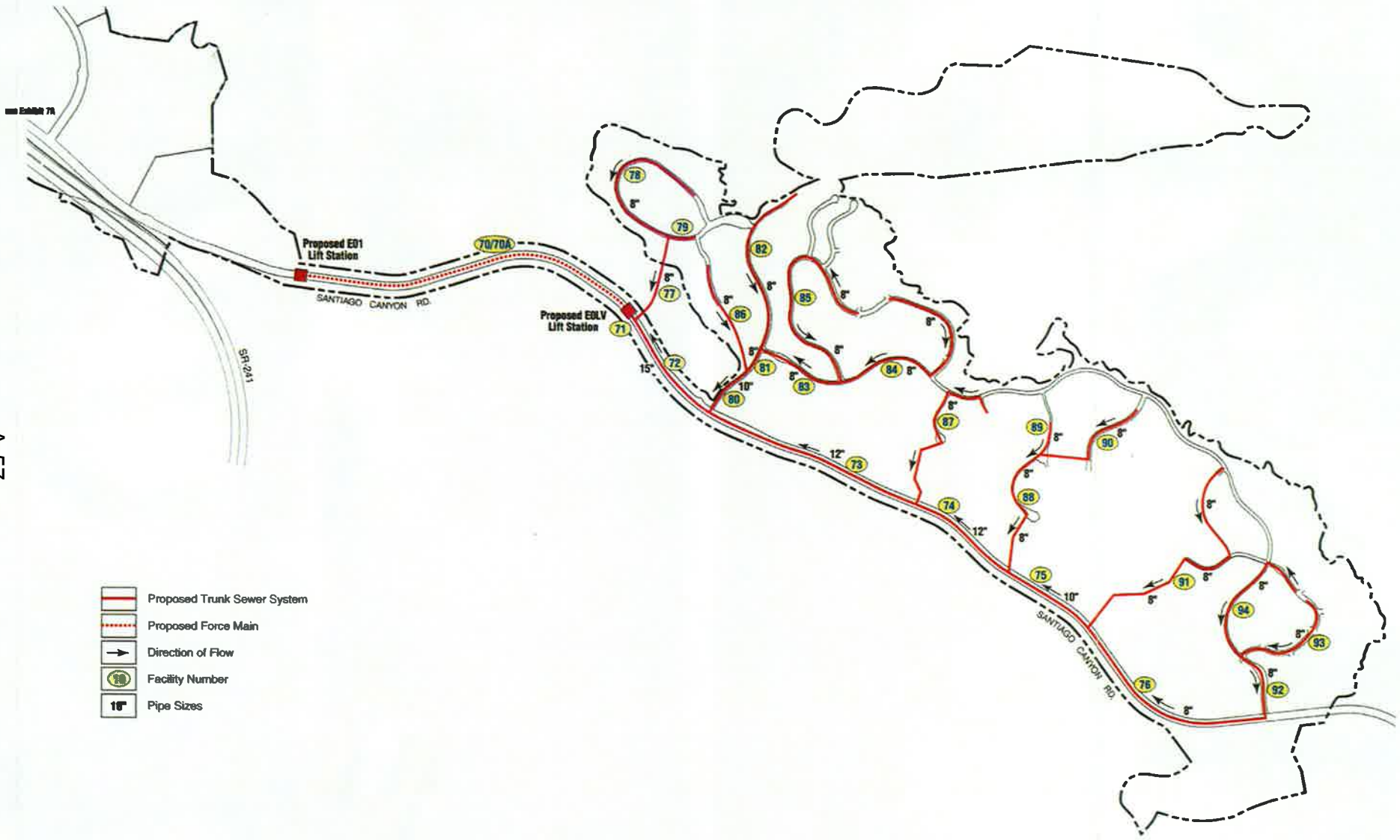
A-56








- Proposed IRWD Sewer Pipeline
- Proposed IRWD Force Main



A-57



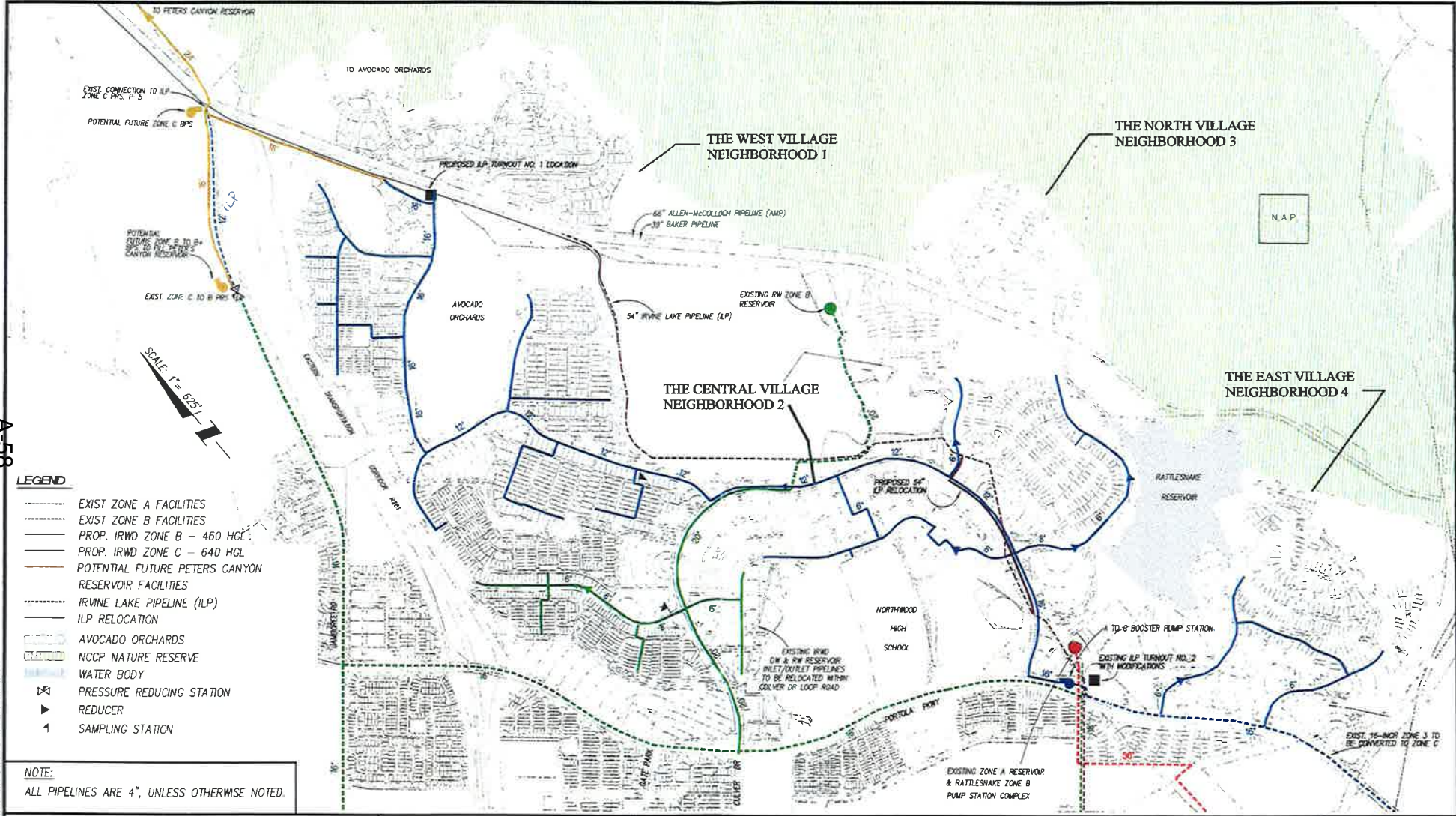
-  Proposed Trunk Sewer System
-  Proposed Force Main
-  Direction of Flow
-  Facility Number
-  Pipe Sizes

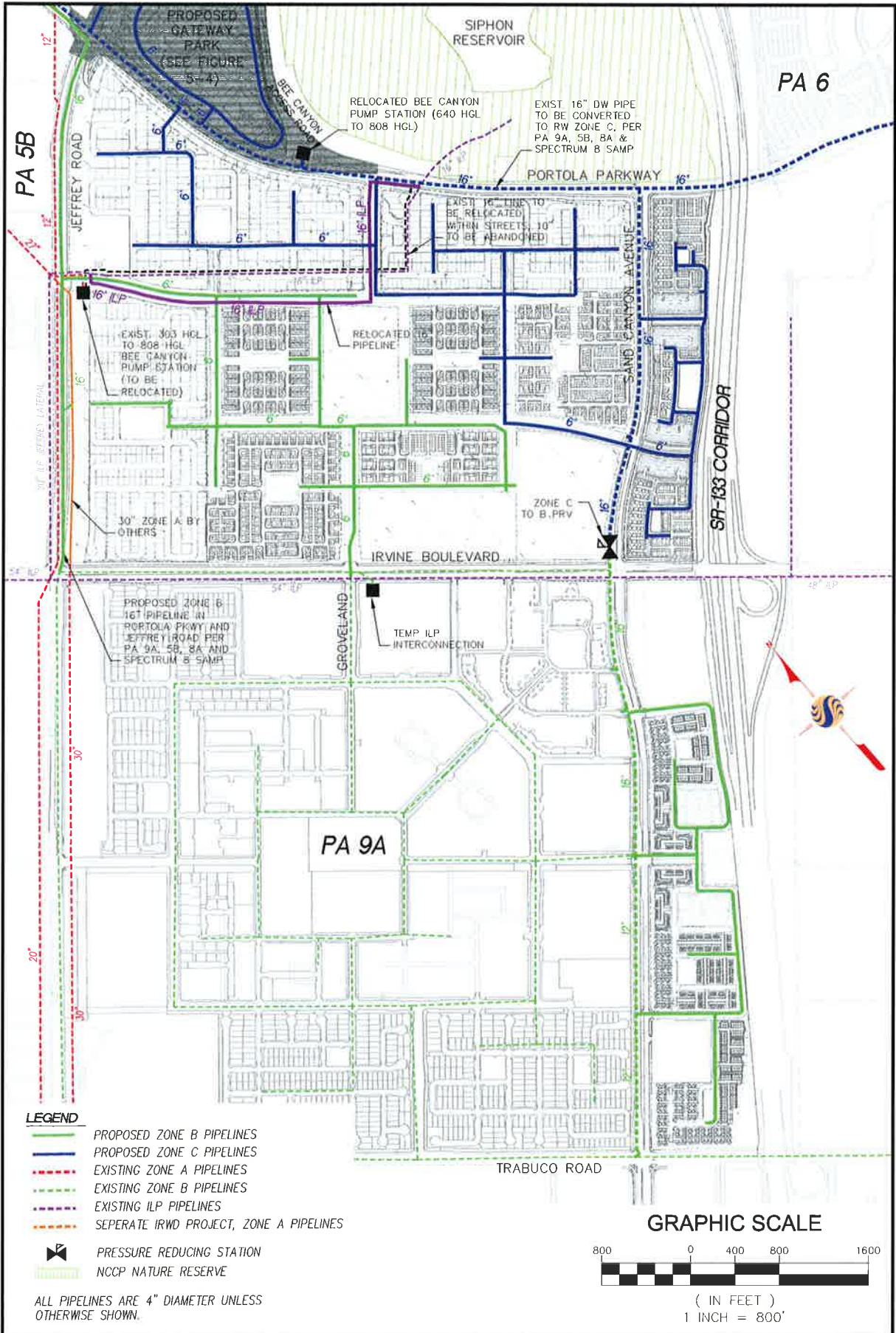
RBF CONSULTING



0 1200'

12/29/04 JF 18-100312-11504



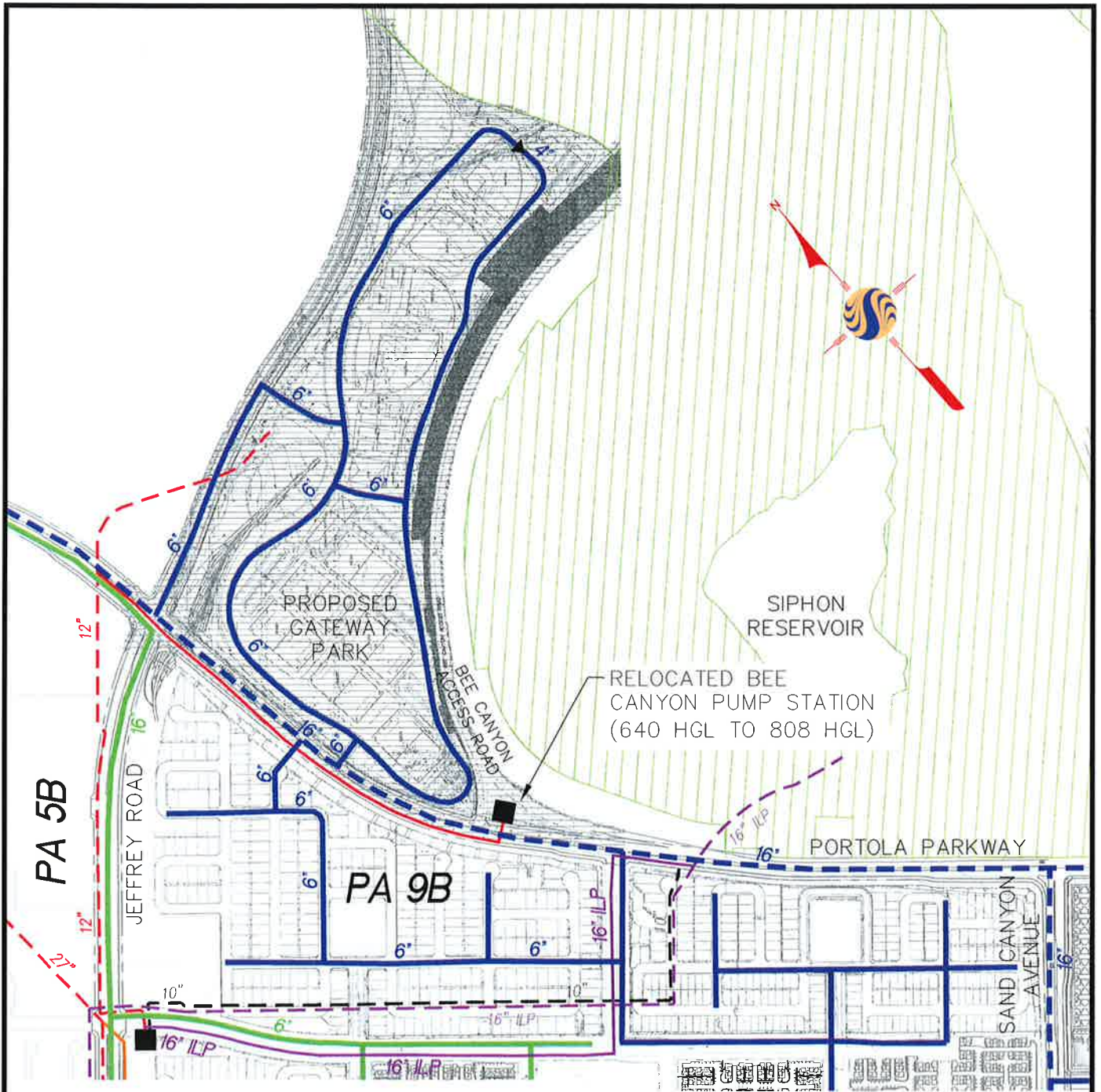



STANTEC CONSULTING INC.
 19 TECHNOLOGY DRIVE
 IRVINE, CA 92618
 949.923.6000





PLANNING AREA 9B, 9C SAMP
NON-POTABLE WATER

FIGURE 5-3

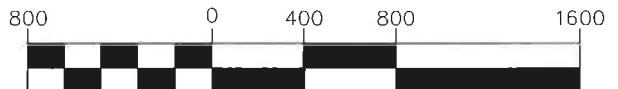


LEGEND

-  PROPOSED ZONE C PIPELINES
-  NCCP NATURE RESERVE

ALL PIPELINES ARE 4" DIAMETER UNLESS OTHERWISE SHOWN.

GRAPHIC SCALE



(IN FEET)
1 INCH = 800'

PREPARED BY:



STANTEC CONSULTING INC.
19 TECHNOLOGY DRIVE
IRVINE, CA 92618
949.923.6000

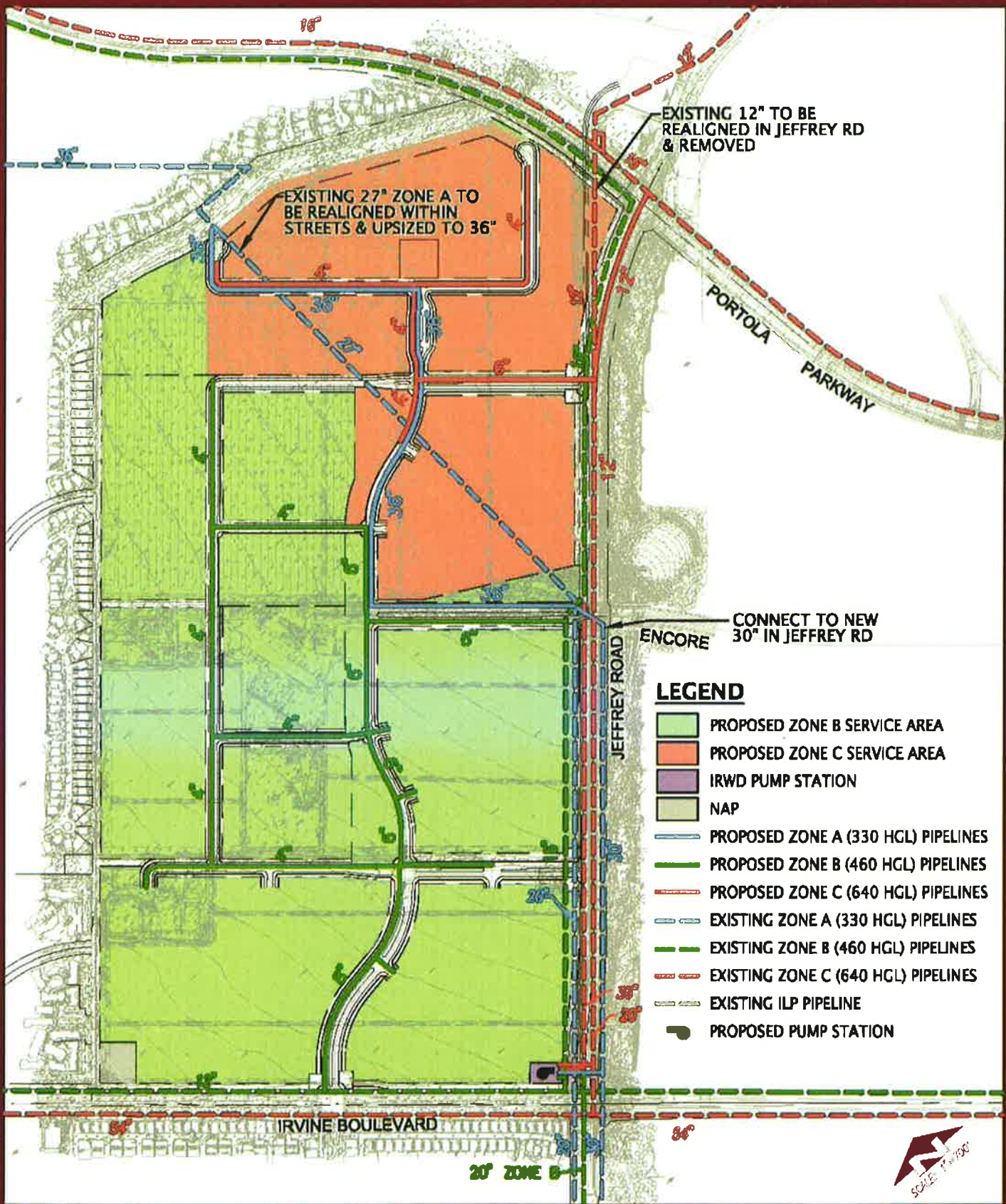
PREPARED FOR:



**PA 9B, 9C SAMP
GATEWAY PARK
NON-POTABLE WATER**

**FIGURE
5-4**

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LEGEND

- PROPOSED ZONE B SERVICE AREA
- PROPOSED ZONE C SERVICE AREA
- IRWD PUMP STATION
- NAP
- PROPOSED ZONE A (330 HGL) PIPELINES
- PROPOSED ZONE B (460 HGL) PIPELINES
- PROPOSED ZONE C (640 HGL) PIPELINES
- EXISTING ZONE A (330 HGL) PIPELINES
- EXISTING ZONE B (460 HGL) PIPELINES
- EXISTING ZONE C (640 HGL) PIPELINES
- EXISTING ILP PIPELINE
- PROPOSED PUMP STATION



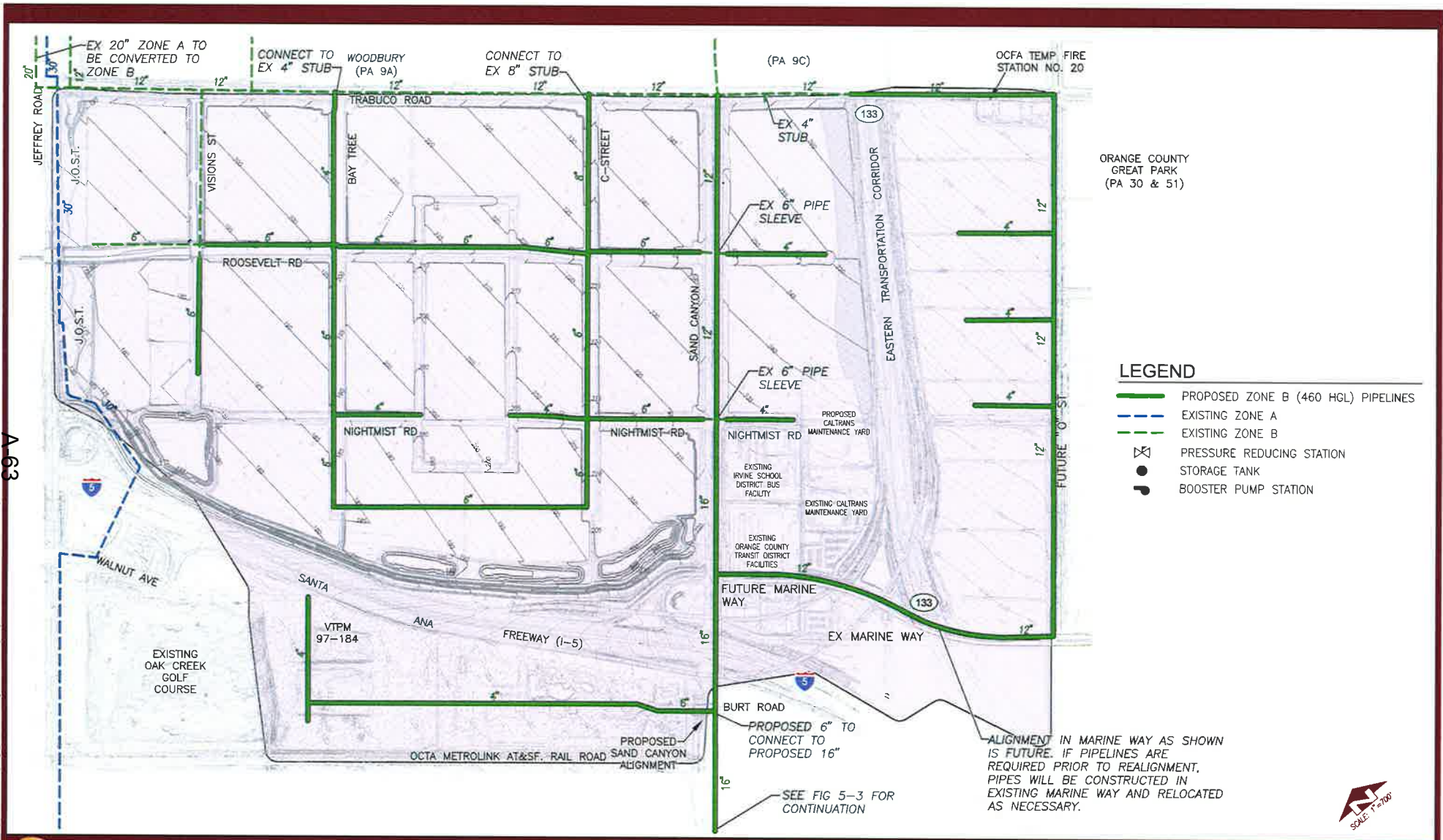
PA 5B SAMP UPDATE

NONPOTABLE WATER SYSTEM

FIG 4

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A 63



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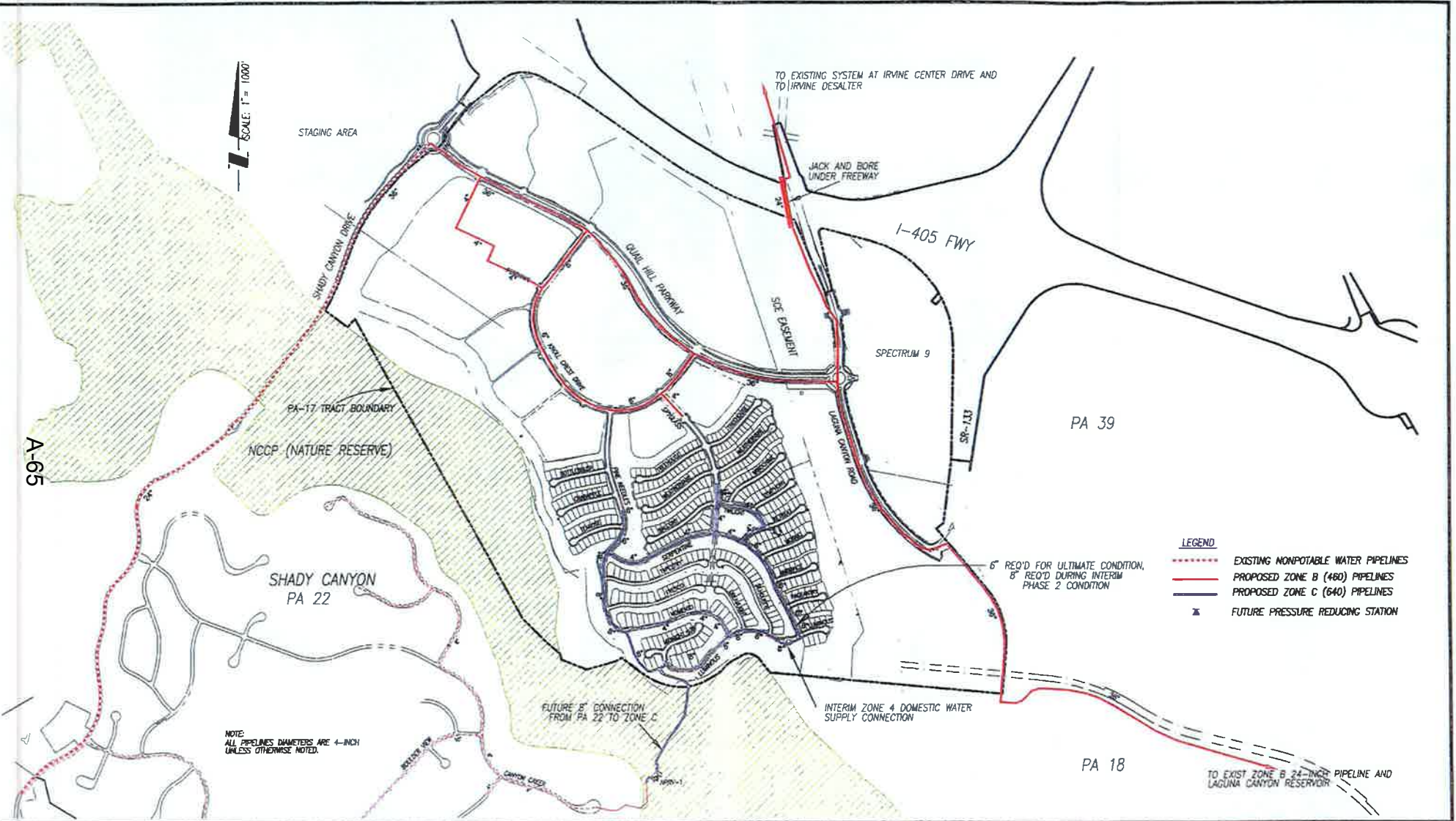
PREPARED FOR THE:
IRVINE RANCH
WATER DISTRICT

PLANNING AREA 40 SAMP

**NON-POTABLE WATER
SYSTEM FACILITIES**



**FIGURE
5-4**



SCALE: 1" = 1000'

STAGING AREA

TO EXISTING SYSTEM AT IRVINE CENTER DRIVE AND TO IRVINE DESALTER

JACK AND BORE UNDER FREEWAY

I-405 FWY

SIC 655621611

SPECTRUM 9

PA 39

A-65

SHADY CANYON DRIVE

QUAIL HILL DRIVE

PA-17 TRACT BOUNDARY

NCCP (NATURE RESERVE)

SHADY CANYON PA 22

- LEGEND**
- EXISTING NONPOTABLE WATER PIPELINES
 - PROPOSED ZONE B (460) PIPELINES
 - PROPOSED ZONE C (640) PIPELINES
 - ⊗ FUTURE PRESSURE REDUCING STATION

6" REQ'D FOR ULTIMATE CONDITION, 8" REQ'D DURING INTERIM PHASE 2 CONDITION

NOTE: ALL PIPELINES DIAMETERS ARE 4-INCH UNLESS OTHERWISE NOTED.

FUTURE 8" CONNECTION FROM PA 22 TO ZONE C

INTERIM ZONE 4 DOMESTIC WATER SUPPLY CONNECTION

PA 18

TO EXIST ZONE B 24-INCH PIPELINE AND LAGUNA CANYON RESERVOIR

Keith Companies

 5 Red Hill Avenue, Costa Mesa, CA 92626 (714) 540-0800

PREPARED FOR:
 IRVINE RANCH WATER DISTRICT

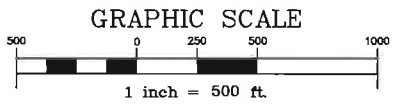
**QUAIL HILL (PA 17) SAMP
 NON-POTABLE WATER SYSTEM FACILITIES**

FIG 5-3

REVISED 02/20/2003

QUAIL HILL SAMP

DRAWING: \\projects\20140482400\dwg\pnr0005.dwg PLOTTED: 8/2/2011 12:01 PM BY: Fontenot, Jon 99A



- LEGEND**
- PROPOSED ZONE (460 HGL)
 - EXISTING ZONE B (460 HGL)
 - ZONE B (460 HGL)



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PREPARED FOR THE
IRVINE RANCH
WATER DISTRICT

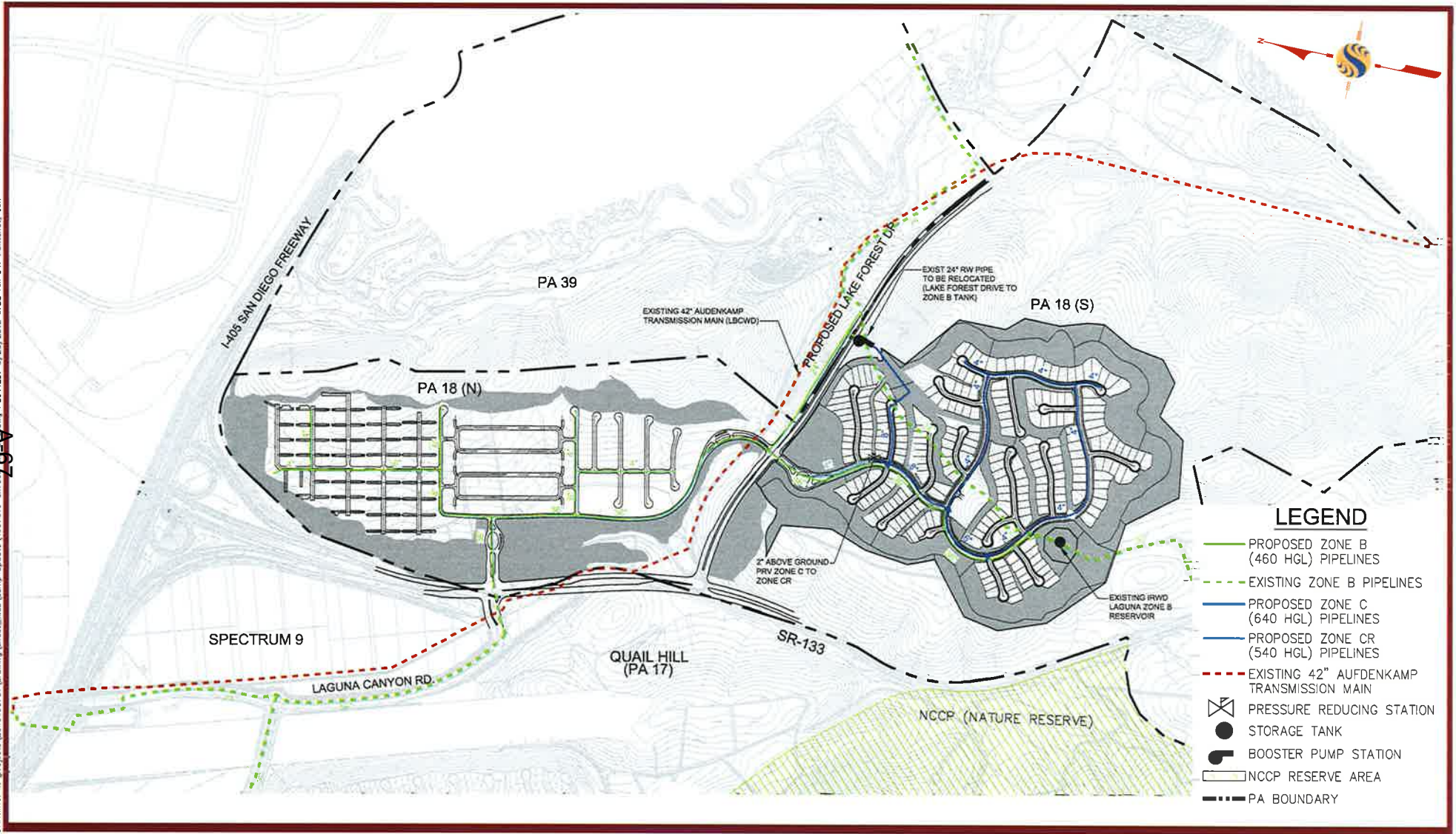
PLANNING AREA 39 SAMP

PROPOSED NON-POTABLE WATER FACILITIES



FIGURE
5-2

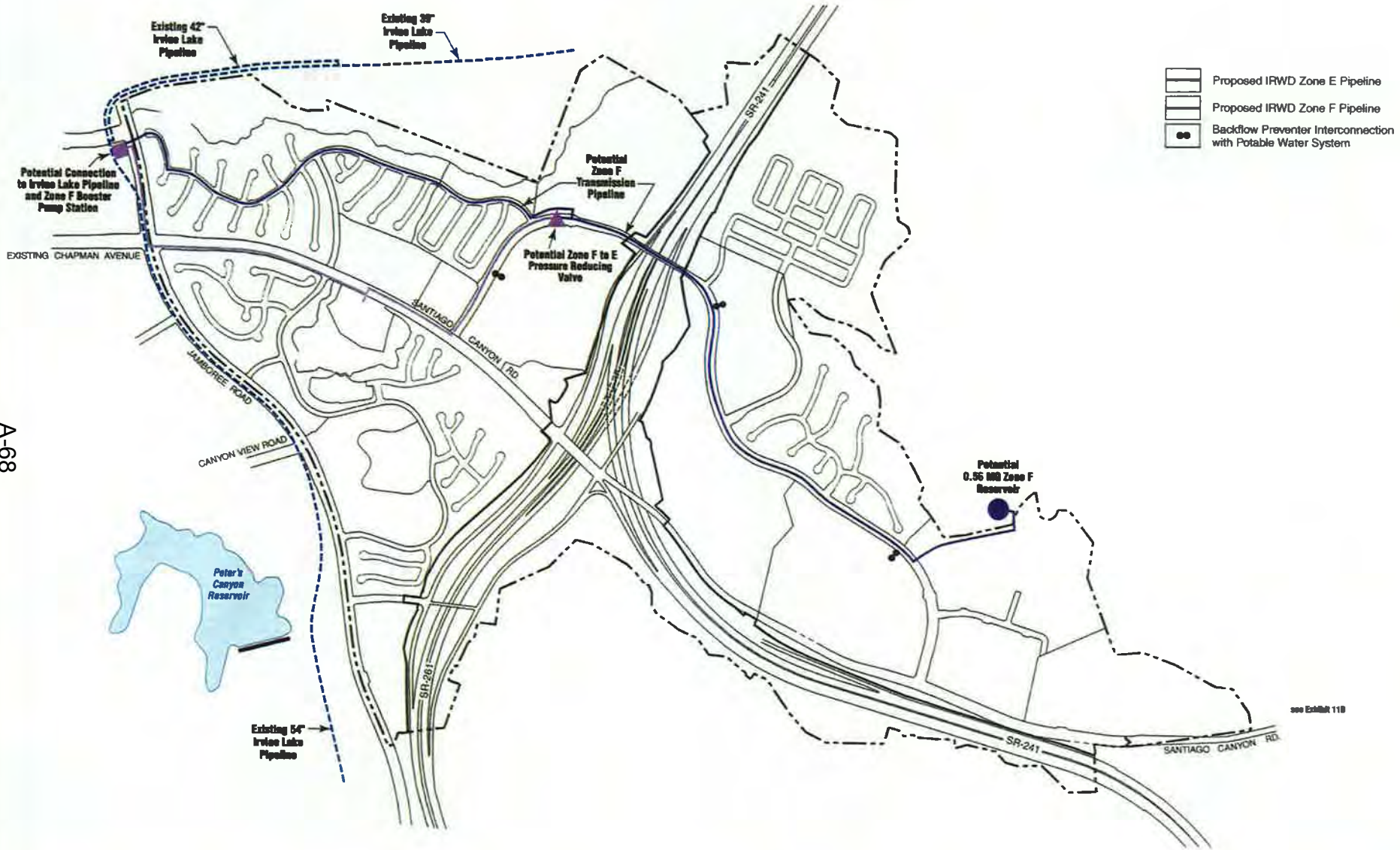
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PLANNING AREA 18 SAMP UPDATE
 PROPOSED NON-POTABLE
 WATER FACILITIES

FIGURE
 5-3

A-68

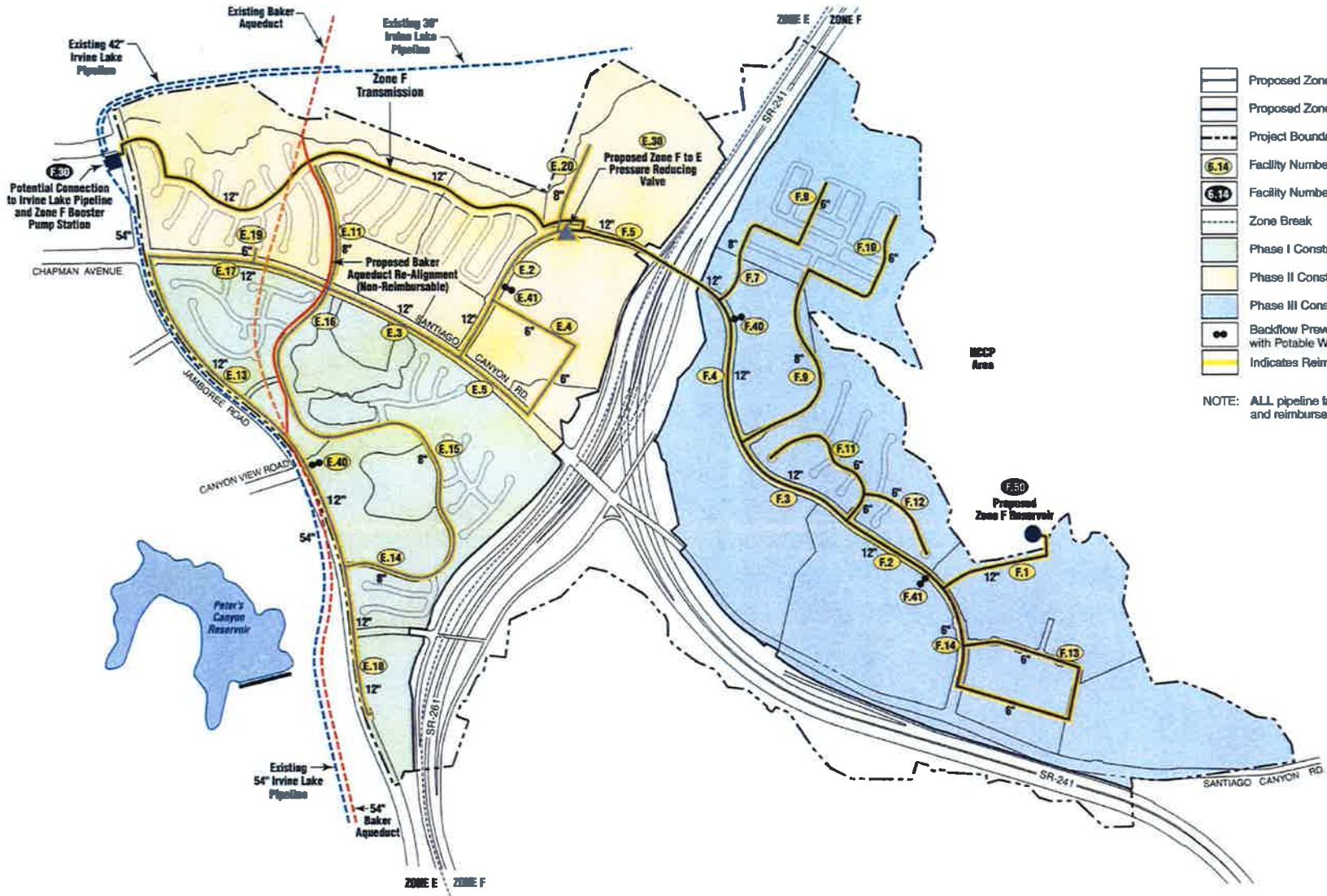


-  Proposed IRWD Zone E Pipeline
-  Proposed IRWD Zone F Pipeline
-  Backflow Preventer Interconnection with Potable Water System

RBF CONSULTING



0 1000'



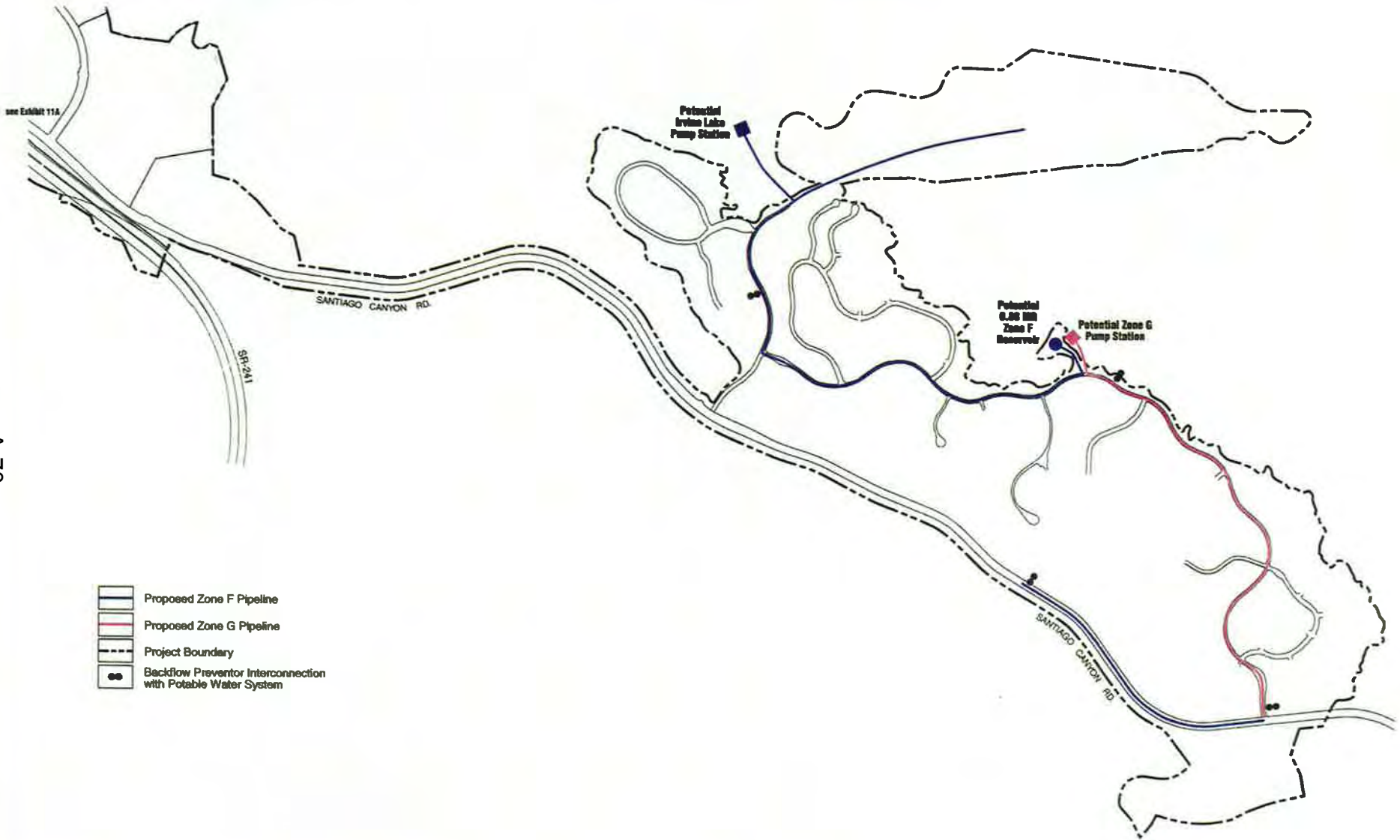
- Proposed Zone E Main
- Proposed Zone F Main
- Project Boundary
- Facility Number (Reimbursable)
- Facility Number (Non-Reimbursable)
- Zone Break
- Phase I Construction
- Phase II Construction
- Phase III Construction
- Backflow Preventer Interconnection with Potable Water System
- Indicates Reimbursement Facilities





NOTE: ALL pipeline facilities shown are back bone and reimbursement facilities.

ENGINEERING & PLANNING
 NOV 28 2005
 IRVINE RANCH
 WATER DISTRICT

**SANTIAGO HILLS II AND EAST ORANGE AREA I
 EXHIBIT FOR REIMBURSEMENT AGREEMENT
 Non-Potable Water System**

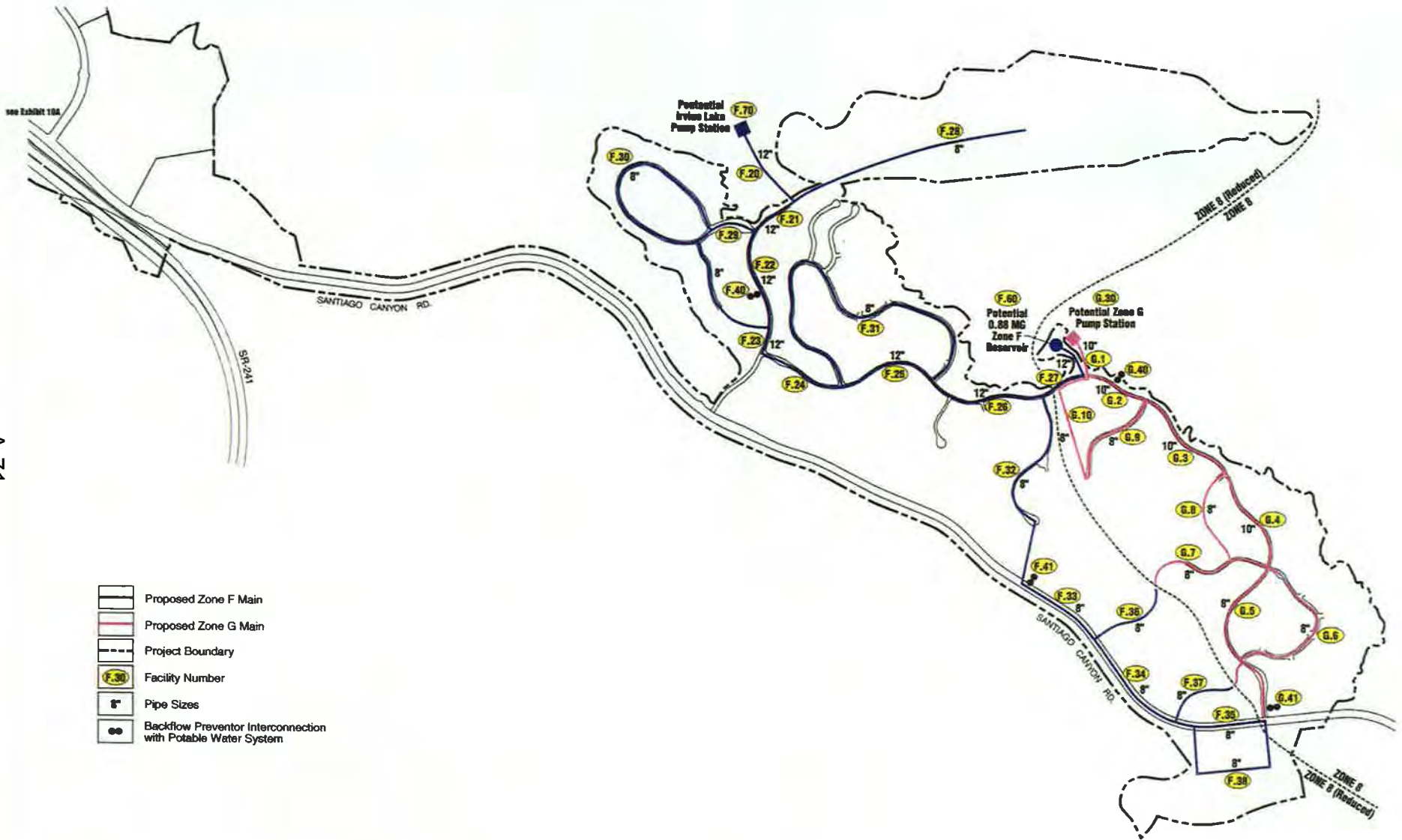
A-70









-  Proposed Zone F Pipeline
-  Proposed Zone G Pipeline
-  Project Boundary
-  Backflow Preventor Interconnection with Potable Water System

see Exhibit 104

A-71



-  Proposed Zone F Main
-  Proposed Zone G Main
-  Project Boundary
-  Facility Number
-  Pipe Sizes
-  Backflow Preventer Interconnection with Potable Water System

SECTION 5 FINANCIAL PHASING SUMMARY

This section summarizes the phasing of the financial requirements in ID No. 253. A schedule of financial phasing requirements based on projected phasing of facilities is shown in **Table V-1**. Also shown in the table is the general class of items that will be covered in these projected amounts.

Table V-1 includes a 10% contingency to allow for unexpected inflation as well as changes in land use and development density.

It should be noted that this table does not represent actual bond issues. As facilities are needed which warrant or require bond funding, actual bond issuance needs will be determined.

ID No. 253 has existing authorized bonds in the amount of \$122,700,000, none of which have been issued.

**Table V-1
Bond Authorization Summary
Improvement District 253**

| | 2013-2015 | 2016-2020 | 2021-2025 | 2026-2035 | Total Escalated Amt |
|--|---------------------|---------------------|---------------------|--------------------|------------------------|
| Escalated Local Subtotal | \$5,077,765 | \$20,877,631 | \$17,544,252 | \$0 | \$43,499,648 |
| Escalated Regional Subtotal | \$6,196,792 | \$23,211,393 | \$6,729,426 | \$2,366,521 | \$38,504,132 |
| Escalated Sub-Regional Subtotal | \$621,940 | \$13,386,224 | \$0 | \$0 | \$14,008,164 |
| Contingency (10%) | \$1,189,650 | \$5,747,525 | \$2,427,368 | \$236,652 | \$9,601,194 |
| Bond Reserve (6%) | \$785,169 | \$3,793,366 | \$1,602,063 | \$156,190 | \$6,336,788 |
| Funded Reserve (6%) | \$785,169 | \$9,196,040 | \$1,602,063 | \$156,190 | \$6,336,788 |
| Bond Discount (2%) | \$1,173,298 | \$6,897,030 | \$534,021 | \$52,063 | \$2,112,263 |
| Bond Issuance Costs (1%) | \$586,649 | \$6,897,030 | \$267,010 | \$26,032 | \$1,056,131 |
| Bond Authorization Total | \$16,416,431 | \$90,006,240 | \$30,706,203 | \$2,993,649 | \$121,455,110 |

A-73

SECTION 6 BENEFIT OF THE PLAN OF WORKS TO THE LANDS IN THE IMPROVEMENT DISTRICT

6.1 OVERVIEW

Under the California Water Code, the plan of works for an improvement district provides a plan and an estimate of the cost of the works that are needed to serve the improvement district and that will be financed through District-issued bonds, and reflects the determination by the District's Board of Directors that the territory within the improvement district will benefit from the works. To the extent practical, a plan of works will incorporate generalized facilities descriptions and flexibility in the selection of specific projects, so that a revised or supplemented plan will not be needed. If a revised or supplemented plan is adopted, it must benefit the territory within the improvement district. Similarly, when territory is annexed to or detached from an improvement district, including annexations and detachments implemented for the purpose of reorganizing improvement districts to be consolidated as coterminous improvement districts, there must be an accompanying evaluation of territory that will benefit by inclusion within the plan and therefore should be included, and territory that will not benefit and therefore should be excluded.

The benefits that lands receive from sewer and recycled water works are derived from multiple considerations. Primary is the ability of lands to receive service currently or when needed in the future. Other examples of benefits are system or facilities reliability through supply diversification, redundant treatment and disposal capacity, storage capability, system looping or other characteristics; regulatory compliance; environmental protection; and regional cost efficiencies in operation and maintenance. In the case of a consolidation of improvement districts, other benefits may include economies of scale, administrative simplification and enhancement of credit and reduced borrowing cost or debt service cost.

For purposes of evaluating benefit of improvement district consolidations, cost allocation is dictated in part by the requirements contained in the Water Code for structuring consolidations. In accordance with these requirements, the remaining authorized, unissued bonds of the consolidating improvement districts will become the authorized bonds that can be issued on behalf of the consolidated successor improvement district. Upon the consolidation, debt service for the outstanding bonds of the consolidating improvement districts will become obligations of the consolidated successor improvement district.

6.2 DESCRIPTION OF THE STUDY APPROACH

The reorganization of ID Nos. 153 and 253 is part of an overall restructuring of the District's improvement districts, which also includes the consolidation of ID Nos. 125 and 225 and the formation of ID Nos. 185 and 285. See Section 1.3, "THE IMPROVEMENT DISTRICTS – The Current Consolidations and Reorganizations." In this regard, the District has undertaken a comprehensive evaluation and study of its long-term financial requirements, including:

- a detailed planning, engineering and financial assessment of the total costs of existing and future facilities in the water and wastewater systems;
- available bond authorization and other revenue sources to finance facilities to serve future development (“new capital”), augment system reliability and meet upgraded regulatory requirements for both existing and future demands (“enhancement”) and replace and refurbish the existing systems (“replacement”);
- debt service;
- simplification of the improvement district structure; and
- assurance of equitable and fair sharing of regional and local cost between existing and future users and among the areas that have comprised the various existing improvement districts and other geographic areas served by the system.

The existing improvement district structure has served the District for more than 40 years as the system was built and growth patterns necessitated a means of maintaining equity in the financing of facilities. Using the mechanisms of periodic formation of new improvement districts and authorization of bonds as well as regional cost allocations, the District has been able to maintain fair and equitable cost sharing while accommodating both intense growth within its boundaries and several acquisitions of adjacent service areas. Construction and expansion of the systems were the key features of this financial structure. Although growth will continue for several more years, going forward the completion of the regional systems and provision for system reliability and replacement will become the predominant driver of the financial requirements. The District’s comprehensive evaluation of its financial requirements indicates that a simplification of the improvement district structure and related actions will provide a sustainable methodology for equitable cost allocation in the future.

As described in Section 1.3, the District’s long-term strategic plan for the improvement district structure would reduce the number of improvement districts, ideally to one water improvement district and one sewer improvement district, through consolidations and reorganizations to be implemented as and when considerations for separation of the various improvement districts no longer remain. The District’s financial review identified steps that were currently feasible in achieving that objective as well as the parts of the current structure which need to be maintained at this time until factors relating to the preservation of equitable cost sharing merit the evaluation of further consolidation steps.

General obligation bonds have been the District’s principal tool for financing facilities. Under this form of financing, the obligation for repayment of bonds issued on behalf of an improvement district is secured by the power of the District to levy and collect *ad valorem* assessments without limitation as to rate or amount on land only (enforceable by customary rights to foreclose and sell property for delinquent assessments) or, in lieu of assessments, in the District’s discretion, charges for water or sewer service, as applicable, all within the subject improvement district. The District also uses connection charge revenues to pay a portion of the debt service costs. For new capital cost within the developing improvement districts, the District plans to continue its historical practice of targeting a 50-50 allocation as a fair means of sharing improvement district debt service costs between the aggregate

contributions of connection charge revenues and property tax revenues. The evaluation of financial requirements and modifications of the District's improvement district structure therefore involve an examination of outstanding and future bond debt service, bonding authority, allocation of costs, and resultant contributions of connection charges and *ad valorem* property taxes over time.

6.3 LONG-TERM FINANCIAL REQUIREMENTS MODELING

As introduced in the preceding section, the foundation of the evaluation of the benefit of the Plan of Works to the lands in the Improvement District is the District's comprehensive review of its long-term financial requirements. To assist the District in this evaluation, the District employed modeling of a baseline condition defined by the improvement district structure as it existed prior to the current reorganization and consolidation steps. The baseline modeling facilitated various aspects of the long-term financial requirements evaluation:

- refinement of capital cost allocations according to the functional benefits (e.g., development expansion, reliability, regulatory compliance, environmental protection, system refurbishment) of the facilities to various areas and user categories;
- use of existing bond proceeds and available bond authorization and other revenue sources for the financing of future facilities within the new capital expansion, enhancement and replacement project classifications;
- use of the District's allocation of the general 1% *ad valorem* property tax levy;
- benefit of the simplification of the improvement district structure and the aggregated regional and local systems;
- identification of areas where the structure must be retained or modified to equitably address special considerations; and
- measurement of equitable and fair sharing of regional and local cost between existing and future users and among the areas that have comprised the various existing improvement districts and other geographic areas served by the system.

Modeling of modified aspects of the baseline enabled the District to test the effectiveness of modifications to various capital –project related fiscal and financing practices in developing a new improvement district and cost allocation structure to effectively maintain equity as the development phase within the District progresses toward buildout. Details of the modeling process described in this section, including review and analysis of interim results and identification of refined and additional modeling efforts, are compiled in a Technical Appendix that serves as a reference document for this Plan of Works.

6.4 REGIONAL SYSTEM BENEFIT

The 1978 Plan of Works for ID No. 253's predecessor, ID No. 1 of Santiago County Water District (SCWD), contemplated that the sewage collection, treatment and disposal needs of its ultimate

population of about 38,000 would be furnished through a trunk sewer system that would discharge sewage from the southern portion of the improvement district to Limestone and Santiago Canyons and into a proposed SCWD tertiary wastewater reclamation plant that would also received flows pumped from the Fremont Canyon area. Reclaimed water produced by the plant and untreated water that could, by agreement with IRWD, be received from the Santiago Lateral through Irvine Lake were the contemplated sources to be used to supply irrigation demands. In 1985, when the reorganization of Orange County Sanitation District No. 14 was undertaken to include much of IRWD's territory, a portion of SCWD's ID No. 1 was also included. At that time the remainder of ID No. 1 now included in IRWD's ID No. 253 was designated within OCSD's sphere of influence. The OCSD-sphere portion of ID No. 1 (ID No. 253) was annexed to OCSD in 2006, in conjunction with the consolidation of SCWD with IRWD. These organizational changes formed the groundwork for serving ID No. 253 through MWRP and OCSD's Revenue Area 14, thus integrating the regional system for ID No. 253 within the regional system that serves most of IRWD.

The majority of the regional wastewater treatment, disposal and reclamation facilities exist. Based on its ultimate demands, ID No. 253 will need to contribute its proportional share of the cost of completing the regional system, including any expansion such as the acquisition of additional MWRP capacity, and including new components necessary to provide basic reliability. The areas reorganized within ID No. 253 were primarily within former ID Nos. 230, 250, 253 and, to a lesser extent, other improvement districts. At this stage of completion of IRWD's regional system, former distinctions among the improvement districts from which the areas reorganized as ID No. 253 originated are no longer material in regard to service from the regional system. Historically, these distinctions included the extent and duration of individual improvement districts' reliance on the untreated system to serve agricultural water, proximity to different completed and yet-to-be-completed segments of the treated water feeders, interceptor and trunk sewers and treatment facilities, uncertainties in the progression (location and pace) of development, and planning determinations that were yet to be made by the District in the elements of the major facilities components and supply sources, such as pipeline and well field capacity. All of these factors have either disappeared or diminished in importance, and the regional benefits among the areas reorganized within ID No. 253 are now essentially uniform.

As one example of the gradual diminishing of the earlier distinctions among the individual improvement districts' plans for supply and delivery alternatives, the 1974 plans of works initially contemplated separate treatment plants connected to the untreated delivery system for each of ID Nos. 103 and 105. In 1977, the initial plan for local (or regional) treatment of raw water in ID No. 103 (shared with ID No. 109), was shifted to a backup alternative, in favor of ID No. 103's pro rata participation in the District's capacity to be obtained in the proposed regional treated water system now known as the Allen McColloch Pipeline (AMP) to serve its supplemental water needs. By 1978, this was again modified to include participation by ID No. 103 in the District's acquisition of capacity in the AMP in combination with participation in the construction of the District's own well field in the main Orange County groundwater basin as a more economical and preferred domestic supply alternative source. The local treatment plants as originally contemplated were not built, but the District is presently participating in the construction of the Baker Plant as a regional treatment plant that will benefit the entire service area.

This progression continued, with the distinctions becoming fewer as the planning of the regional system evolved and the system was constructed. With only approximately 10 - 12 percent of the equivalent dwelling units (EDUs) remaining to be built in ID Nos. 253 and 285, these distinctions are no longer prominent. The regional system and its integrated treatment and reclamation facilities provide uniform benefit to all of the component areas of ID No. 253 by satisfying basic treatment, disposal and recycled water supply and peaking needs and providing protection against emergency outages. Connection fees, adjusted by planning areas if and to the extent necessary to differentiate the fee amounts to adjust for varying local and sub-regional project benefits, and ad valorem taxation will adequately allocate the cost share of ID No. 253 among its various planned development areas in proportion to their benefit.

Through the regional split, the areas within the reorganized ID No. 253 have shared the cost of IRWD's regional reclamation plants, as well as the treatment and disposal facilities of Orange County Sanitation District and its Revenue Area 14 under agreements between the District and OCSD. Not all of ID No. 253's and other improvement districts' service areas are tributary to all of the plants. However, the plants and their tributary regional collection systems are considered to function as one regional system and optimize the District's sewage collection and water reclamation systems and provide dual or backup treatment capability for the various parts of the service area. The District is continuing to develop its capability for multiple treatment options among the tributary areas of the plants. Thus all areas participate proportionally in the regional system. All areas receive the uniform sewer rate which provides the benefit of reduced cost through treatment options. An exception to this is ID No. 240, which is sewered only to OCSD's regional plant and is not within OCSD's Revenue Area 14 nor tributary to the MWRP, LAW RP, or Chiquita plants. IRWD does provide sewage collection and recycled water service to ID No. 240. ID No. 256 in large part remains on individual septic systems, and it is uncertain whether and when that community will desire to convert to a public sewer system. ID No. 252 is not tributary to IRWD plants but may benefit from future recycled water facilities. ID Nos. 240, 252 and 256 are not included in the current reorganization and consolidation of improvement districts.

As described in Section 3, the District uses a demand forecasting tool to allocate regional system costs among improvement districts. This ensures that ID No. 253 as a whole will be allocated a share of the regional system costs in proportion to the benefit it will receive from the system. See **Table III-1**.

6.5 REGIONAL COST ALLOCATION - INCLUSION IN IMPROVEMENT DISTRICT NO. 225

In parallel with the reorganization of ID No. 253 itself, ID No. 253's territory will be retained as part of the reorganization of several improvement districts to form a consolidated improvement district designated ID No. 225. See Section 1.3, "THE IMPROVEMENT DISTRICTS – The Current Consolidations and Reorganizations." All of the developing areas reorganized into ID Nos. 253 are retained or reorganized within the boundaries of the underlying improvement district, ID No. 225. This assures that the developing areas will share in the cost of existing local and sub-regional facilities from which they

benefit, such as trunk sewer facilities, previously built with the proceeds of bonds of one of the improvement districts consolidated in the underlying improvement district.

Like ID No. 253, ID No. 225 will continue to share proportionally in the cost of completing the regional system, such as treatment plant expansion costs and the new capital portion of the cost of solids handling facilities. This occurs because under the District's incremental approach, although the regional system provides service prior to its completion, it remains incomplete, and future regional projects will add components necessary to provide basic reliability, benefitting the developed areas as well as future development. To prevent overpayment by the areas included within both improvement districts' regional allocations, the regional allocation for ID No. 225 will exclude demands of ID No. 253, and the 50/50 allocation of debt service responsibilities between connection fees and property taxes will be applied on an aggregated basis for the area within ID No. 253, between the overlying and underlying improvement districts.

6.6 LOCAL FACILITIES COST ALLOCATION

Historically, planned developments within a geographic area have been grouped together in an improvement district notwithstanding the fact that each development may be served by distinct local facilities, as the cost of these are generally uniform over the improvement district. This is also considered to be the case for the various geographic areas comprising ID No. 253. To the extent necessary to achieve fair and equitable allocation of local facilities costs, planning areas can be used to recognize any unequal costs of sub-regional and local facilities benefiting only one, or some but not all, of the planned developments in the territory of the reorganized ID No. 253.

As with regional system benefits discussed above, connection fees, adjusted by planning areas if and to the extent necessary to reflect unique local facilities costs not fairly allocable to the entire improvement district, and *ad valorem* taxation will adequately allocate the cost share of the ID among its various planned development areas in proportion to their benefit. The segregation between the ID Nos. 253, 285, 288, existing ID Nos. 212 and 213, and the consolidated developed ID No. 225 is considered adequate to ensure that capital cost allocation recognizes the area-specific local facilities costs yet to be incurred in the planned development areas.

6.7 IMPROVEMENT DISTRICT NO. 253 BENEFIT

The District has reviewed and analyzed benefit to the lands from the reorganized ID No. 253 in several ways: (1) similarities or differences in future service needs among the areas identified for inclusion by annexation to, or by retention in, the reorganized as ID No. 253; (2) the benefit or lack of benefit to the areas identified for exclusion from the reorganized as ID No. 253; and (3) regional cost allocation among ID No. 253 and other areas receiving benefit from the regional facilities. Also evaluated were (4) areas not included in any improvement district and (5) certain areas retained as separate improvement districts.

(1) Included areas. The areas reorganized as ID No. 253 comprise several non-contiguous planned development areas that were previously in different improvement districts. Therefore, it is appropriate to assess whether any one or more of these areas possess essential distinctions, in terms of benefit from the planned local facilities or regional facilities (including treatment and disposal) that would warrant exclusion from the ID No. 253 territory. The areas included in the reorganized ID No. 253 are described in Section 2. With respect to regional facilities, all areas will be benefitted by the integrated wastewater collection and treatment and recycled water systems. Based on the available planning information for the expected development of each planned area, all of which are predominantly residential with other uses, it is concluded that the areas are similarly benefitted by the Plan of Works and that the *ad valorem* assessments for debt service and connection fees for the classifications applicable to the anticipated uses will fairly allocate cost within the ID based on demands. Connection fees, which can be adjusted through planning areas if and to the extent necessary to reflect unique local or sub-regional facilities costs not fairly allocable to the entire improvement district, and *ad valorem* taxation will adequately allocate the cost share of the improvement district among its various planned development areas in proportion to their benefit. Simultaneous inclusion of the ID No. 253 lands within the underlying improvement district, ID No. 225, assures that the developing areas will continue to share in the cost of existing local and sub-regional facilities from which they benefit, such as trunk sewers, previously built with the proceeds of bonds of one or more of the improvement districts consolidated in the underlying improvement district. The exclusion of ID No. 253 demands from the ID No. 225 regional split, and allocation of debt service responsibilities between connection fees and property taxes on an aggregated 50/50 basis between the overlying and underlying improvement districts will prevent overpayment as a result of inclusion within both improvement districts' regional allocations.

(2) Excluded areas. The District also analyzed whether any areas proposed to be excluded from the reorganized ID No. 253 would receive benefit from ID No. 253 planned works, and should not be excluded. The areas excluded consist of substantially developed areas of ID Nos. 230, 250 and other improvement districts which will, instead, be included in the reorganized ID No. 225, open space, and areas contained within another developing improvement district. Also excluded are the areas not included in any improvement district and certain areas retained as separate improvement districts, discussed under separate headings below.

The excluded developed areas will contribute their regional cost share for the completion of the regional system and for the previously constructed local facilities through ID No. 225. The developed areas will continue to be benefitted by the regional facilities financed and to be financed by ID No. 253. However, it is concluded that exclusion of the developed areas is justified in terms of benefit, because, through the reorganized ID No. 225, their allocation of the cost of the regional system benefits will continue to be proportional.

The 13,400 acres reserved as permanent open space near the Lomas de Santiago ridgeline, which is not proposed to remain within any improvement district, and other smaller permanent open space areas will not receive benefit from the planned works and are excluded from ID No. 153, 125 and

other improvement districts. This is warranted by the fact that the area will have no demand served by the system.

Finally, areas contained within developing ID Nos. 212, 213, 253, 285 and 288 are logically maintained as separate improvement districts based on their separate local facilities costs and stages of development. To the extent there are sub-regional facilities from which any of these improvement districts benefit in common, they will share the cost of those facilities with the other participating improvement districts through a proportionate allocation based on benefit received. Exclusion of the other separate developing improvement district areas from ID No. 253 will facilitate the allocation of local facilities costs. Having these remain separate improvement districts does not negatively impact the regional cost allocation or bond authorization, nor would combining them produce any advantage.

(3) Regional cost allocation. Also considered was whether the reorganization achieves equity in relation to the other cost allocations within the regional split. Under the District's historic and continuing methodology for achieving equitable cost allocation, all improvement districts will continue to be allocated proportional shares of regional system project costs until the regional systems are complete; individual improvement districts are not relieved of that obligation although they may receive service through the regional systems prior to their completion. This incremental funding approach also recognizes that at any point in time prior to full buildout, a portion of the cost of the development of the regional systems has been borne by ad valorem assessments on lands not yet fully developed and receiving service. Adjustment of this methodology will be applied as discussed in Section 6.5 to recognize inclusion of areas in both ID No. 253 and underlying ID No. 225. A similar regional allocation would be applied to replacement and enhancement projects, to the extent funded by the improvement districts. Contribution by areas not included in an improvement district is discussed in the heading below.

(4) Areas not included in an improvement district. The District's regional cost allocation approach took into consideration that some areas (referred to collectively with the shorthand references "110" and "210" in keeping with the District's numbering system for designating improvement districts) funded a portion of the District's earliest regional system costs through payment of debt service on general obligation waterworks bonds of the overall District in the 1960s (e.g., original construction of the San Joaquin Reservoir and IRWD's capacity in the East Orange County Feeder No. 2 and other transmission facilities, Frances Mutual Water Company wells, the Aufdenkamp Transmission Main and the original sewage treatment and reclamation system components financed by ID. No. 1(201). Based on their initial financial participation in the original waterworks bonds and sewer ID No. 1 bonds, these earlier-developing areas were not included in the improvement districts formed during the 1970s. Similarly, certain areas added to the District through annexation and consolidation have funded a proportionate share of existing regional facilities costs, sometimes referred to as "acquisition balances," through user rate components. The "110" and "210" areas are excluded from ID Nos. 125 and 225. See Section 1.3, "THE IMPROVEMENT DISTRICTS – The Current Consolidations and Reorganizations."

The District has performed calculations to determine whether historic allocations of cost, to the areas included in the improvement districts and the excluded areas, require future cost participation by excluded areas in order to ensure that the improvement districts do not bear a disproportionate cost of the system. Included in this evaluation are costs of the service delivery systems as well as other regional costs such as administrative headquarters and telemetry. Based on this evaluation, the District has determined that funding of future regional facilities costs of the District, (i.e., costs other than those costs financed by previous bonds and outstanding bonds assumed as obligations of the improvement districts being consolidated) should include participation of the areas that comprise "110" and "210," in proportionate amounts that will be determined taking into account revenue contribution and benefit received from future capital facilities.

(5) Retention of certain improvement districts. Individual cost allocation considerations dictate that certain improvement districts be retained as separate improvement districts at this time.

ID No. 154 contains an area in which general planning information shows that some development could occur. However, the owner indicates no plans beyond current uses.

ID No. 240 discharges wastewater only to OCSD's regional plant and is not tributary to the MWRP, LAWRP, or Chiquita plants. For that reason it is not within OCSD's Revenue Area 14. IRWD does provide sewage collection and recycled water service to ID No. 240, and collection system and recycled water system costs are proportionately allocated to ID No. 240.

ID No. 256 in large part remains on individual septic systems, and it is uncertain whether and when that community will desire to convert to a public sewer system. If and when this occurs, the District will evaluate the appropriate method for recovering the cost of the conversion from the benefitted area, such as retention of the separate improvement district and/or an underlying improvement district.

ID No. 252 is not tributary to IRWD plants but may benefit from future recycled water facilities. This requires retention of the improvement district so that applicable recycled water system costs can be separately allocated. The ID No. 252 formation conditions provided for this through the allocation of a proportionate share of ID No. 250 debt service costs. With the consolidation of ID No. 250 as part of ID No. 225, ID No. 225's debt service costs would be used for this allocation.

6.8 REDEVELOPMENT COST

In recent years, some areas of the District have begun to experience redevelopment activity. This has necessitated the consideration of the fair allocation of cost that should be borne by these areas, and how demands should be included in the demands of the improvement districts. The District is applying methodology to ensure proportional cost contributions for regional system and for added local system needs generated by redevelopment.

SECTION 7 IMPLEMENTATION OF PLAN OF WORKS

7.1 GENERAL

The Plan of Works has been prepared by IRWD pursuant to the provisions of California Water Code Section 36410 *et seq.*


It is by this means that IRWD implements the various portions of its Wastewater Treatment Master Plan, as to wastewater system facilities, and its Water Resources Master Plan, as to recycled water system facilities. IRWD, from time to time as needed, will issue increments of the propose bonds and construct the described facilities in order to meet its responsibility to have facilities available to serve the needs of approved development.

As hereinafter discussed, this Plan of Works will be implemented on a phased basis. Accomplishment of this obligation by IRWD necessitates issuance of bonds in the amount estimated in this Plan of Works.

It is acknowledged that, from time to time, the means of accomplishing the purposes of ID No. 253 may be altered and projects identified in this Plan of Works may be changed or replaced by other projects, by reason of changes in development phasing, changes in technology and refinements to facilities planning developed through IRWD's ongoing master planning and subarea master planning. Costs may include acquisition, construction, replacement, reconstruction and additions to facilities.

7.2 AUTHORIZATION AND ISSUANCE OF BONDS

The authorized and unissued bonds of the reorganized ID No. 253 are estimated to be sufficient to accomplish this Plan of Works. Authorized bonds may be sold and the proceeds used only as specified in the Plan of Works, subject to changes in the projects or substitutions of other projects to reflect changes in development phasing, changes in technology and refinements in master planning and subarea master planning.




Long-Term Capital Funding Plan

Irving Ranch Water District

2013 Plan of Works (POW) Discussion Agenda

- Overview of the Long Term Financial Plan (LTFP)
- Review the objectives of a POW
- Review the concept of benefit
- Review the key elements of the 2013 POW that relate to benefit
- Next steps




Long-Term Capital Funding Plan

Irving Ranch Water District

LTFP Overview

- Provides an end-game for the development model
- Provides the transition plan to move from a “developing” to a “developed” district and preserves the concept that an ID can be developed but not done
- Reallocates the funding for projects previously incorporated into the District’s current long-term capital program; does not add new projects to the approved capital program
- Establishes a sound nexus between benefit and funding under the proposed ID consolidations and reorganizations




Long-Term Capital Funding Plan

Irvine Ranch Water District

LTFP Overview (cont.)

- Updates the 1978 POW
- Reorganizes and consolidates developed and partially developed IDs into ID 125/225
- Reorganizes remaining developing areas into IDs 153/253 and 185/285
- Provides that ID 125/225 underlays developing IDs
- Establishes a planning area over former ID 135 until the area is financially integrated
- Retains existing IDs 112/212, 113/213, and 188/288 as separate developing IDs
- Retains IDs 154, 252, and 256 pending further evaluation
- Retains ID 240 as separate ID
- Implements steps to recover capital funding from 110/210 area




Long-Term Capital Funding Plan

Irvine Ranch Water District


Objectives of a POW

- Required by California Water Code
- Usually pertains to newly developing areas
- Identifies water and sewer infrastructure needed to meet future demands
- Identifies who benefits from proposed facilities
- Allocates cost of funding new facilities to those benefitting
- Provides the basis for voter authorization to issue general obligation bonds

 **Long-Term Capital Funding Plan** Irvine Ranch Water District


Essential Goal of a POW

“The Plan of Works provides the **linkage between the engineering plan and the corresponding financial requirements by setting forth the basis for a determination by the Board of Directors in a noticed hearing that the plan benefits all the territory** within the improvement district including any territory that has been annexed to it.”

 **Long-Term Capital Funding Plan** Irvine Ranch Water District

Benefit

- Reorganizations require a Board finding of benefit
- General principle is that the land receiving benefit should share in the burden of funding
- A Board's rationale to determine benefit meets the benefit standard as long as it is supported by evidence
- Considerable latitude is given to a Board in determining benefit




Long-Term Capital Funding Plan

Irvine Ranch Water District

Benefit

“The **benefits** that lands receive from water and sewer infrastructure **are derived from multiple considerations**. Primary is the ability of the land to receive service currently or when needed in the future. Other examples of benefit are system or facilities reliability through supply diversification, redundant treatment and disposal capacity, storage capability, system looping or other characteristics; regulatory compliance; environmental protection; and regional cost efficiencies in operation and maintenance.”



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

- Update capital project definitions
- Preserve the “incremental” concept
- Implement the underlying ID concept
- Include the 110/210 area in future funding obligations
- Reallocate one percent revenue
- Enact improvement district consolidations and formations



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

Changes in capital project definitions:

- Issue: Some project costs and funding allocations needed to be better aligned with benefit
- Action: Moved reliability and redundancy from the new capital project category to the enhancement category
- Result: A tighter nexus between benefit and burden



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

The incremental concept:

- Issue: the District's capital funding plan incorporated an approach wherein each ID participated in regional infrastructure based on its ultimate demand as a percentage of total District-wide ultimate demand. Therefore, no ID was complete until the overall District was complete. Changing this approach after 40 years could result in significant inequities.
- Action: Retained the incremental approach in the proposed reorganization via an updated regional water and sewer split within the proposed master consolidation.
- Result: Continued the incremental funding philosophy and maintained the equity and integrity of historical funding practices.



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

The Underlying ID concept:

- Issue: How to maintain the funding of existing debt in the proposed reorganization without complex buy/sells or by advantaging or disadvantaging one area relative to another.
- Action: Implemented and underlying ID concept wherein each of the reorganized IDs continue to fund existing debt for infrastructure from which they benefit through a tax assessment from the underlying ID.
- Result: Established a framework to maintain the nexus between benefit received from previously constructed facilities and cost allocations.



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

The 110 Area:

- Issue: A significant area of the District comprising approximately 30% of total demand would benefit from future projects to which they made no financial contribution.
- Action: Evaluated the 110 areas historical capital contribution and determined that the point had been reached where the value of the contribution was met or exceeded by benefit the area would receive from future capital projects.
- Result: The 110 area was included in future capital project funding but excluded from funding existing debt by exclusion from the underlying ID structure.



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

Reallocate one percent revenue:

- Issue: The District's current allocation of one percent revenues, to offset property taxes and connection fees, would not achieve a corresponding equitable outcome in the proposed consolidations.
- Action: Reallocated the one percent to offset user rate contributions for enhancement and replacement projects and allowed for a melding of the tax rate in the underlay ID.
- Result: A more equitable funding of remaining future capital.



Long-Term Capital Funding Plan

Irvine Ranch Water District

Key Elements in the 2013 POW Related to Benefit

ID reorganizations and formations:

- Issue: Several significant issues will emerge within the existing ID structure and changes to that structure appear to be beneficial in the transition to a fully developed district.
- Action: Developed a master consolidation plan that separated developed and undeveloped areas into separate IDs. Retained certain recently formed IDs and proposed the formation of a new ID.
- Result: The master consolidation plan provides the glide path for the eventual dissolution of IDs as they become unnecessary.



Long-Term Capital Funding Plan

Irving Ranch Water District

What the 2013 POW Accomplishes

- Provides a global, comprehensive capital funding plan and reorganized improvement district structure as the District evolves from a developing to a mature operations and replacement agency.
- Avoids piece-meal or patchwork solutions that provide temporary relief but do not address fundamental concerns.
- Satisfies the benefit requirements of proposed changes and maintains the District's goals of fairness and equity.
- Provides a sustainable platform for capital funding through the build-out of the District and completion of the system



Long-Term Capital Funding Plan

Irving Ranch Water District

Next Steps

- September 23 – Board review of draft Plan of Works (ID 253).
- October 14 – Board declares intent to annex and detach parcels for the developed ID (125/225).
- October 28 Public Hearing
 - Hearing/Order annexations and detachments, 21 ID's 125/225
 - Declare intent to consolidate coterminous IDs, 21 IDs - 125/225
 - Declare intent to annex and detach parcels, ID 153/253
 - Declare intent to form ID's 185/285
 - Declare intent to adopt POWs, 125/225, 153/253, 185/285
- November 11 Public Hearing
 - Hearing/Order consolidation of coterminous ID's, 21 IDs 125/225
 - Hearing/Order annexations and detachments, ID 153/253
 - Hearing/Order formation, ID 185/285
 - Hearing/Adopt POW's

September 23, 2013
Prepared and
Submitted by: L. Bonkowski
Approved by: P. Cook



CONSENT CALENDAR

MINUTES OF REGULAR BOARD MEETING

SUMMARY:

Provided are the minutes of the September 9, 2013 Regular Board Meeting for approval.

FISCAL IMPACTS:

None.

ENVIRONMENTAL COMPLIANCE:

Not applicable.

COMMITTEE STATUS:

Not applicable.

RECOMMENDATION:

THAT THE MINUTES OF THE SEPTEMBER 9, 2013 REGULAR BOARD MEETING BE APPROVED AS PRESENTED.

LIST OF EXHIBITS:

Exhibit "A" – Minutes

EXHIBIT "A"

MINUTES OF REGULAR MEETING – SEPTEMBER 9, 2013

The regular meeting of the Board of Directors of the Irvine Ranch Water District (IRWD) was called to order at 5:00 p.m. by President Reinhart on August 26, 2013 in the District office, 15600 Sand Canyon Avenue, Irvine, California.

Directors Present: Withers, Swan, Matheis, LaMar and Reinhart

Directors Absent: None.

Also Present: General Manager Cook, Executive Director of Finance Clary, Executive Director of Engineering Burton, Executive Director of Operations Sheilds, Executive Director of Water Policy Heiertz, Director of Water Resources Weghorst, Director of Public Affairs Beeman, Director of Human Resources Roney, Legal Counsel Arneson, Secretary Bonkowski, Ms. Christine Compton, Mr. Mike Hoolihan, Mr. Ray Bennett, Mr. Jim Reed, Mr. Bruce Newell, Mr. Jim Cathcart, Mr. Ben Porter, and other members of the public and staff.

WRITTEN COMMUNICATION: None.

ORAL COMMUNICATION

Mrs. Joan Irvine Smith's assistant addressed the Board of Directors with respect to the Dyer Road wellfield. She said it was her understanding that currently wells 4, 5, C-8, C-9, 10, 11, 12, 13, 14, 15, 16, 17 and 18 will operate in accordance with the District's annual pumping plan. Wells 1, 2, 3, 6 and 7 will be off. This was confirmed by Mr. Cook, General Manager of the District.

With respect to the OCWD annexation of certain IRWD lands, on June 5, 2009, IRWD received a letter from OCWD noting that OCWD has completed the formal responses to comments they previously received on the draft program Environmental Impact Report. The letter further noted that with this task completed, OCWD has exercised its right to terminate the 2004 Memorandum of Understanding (MOU) regarding annexation. OCWD also indicated that due to the lack of progress on the annexation issue, the draft program Environmental Impact Report will not be completed. On June 8, 2009, OCWD completed the Long-Term Facilities Plan which was received and filed by the OCWD Board in July 2009. Staff has been coordinating with the City of Anaheim (Anaheim) and Yorba Linda Water District (YLWD) on their most recent annexation requests and has reinitiated the annexation process with OCWD. IRWD, YLWD and Anaheim have negotiated a joint MOU with OCWD to process and conduct environmental analysis of the annexation requests. The MOU was approved by the OCWD Board on July 21, 2010. This was confirmed by Mr. Cook.

With respect to the Groundwater Emergency Service Plan, IRWD has an agreement in place with various south Orange County water agencies, MWDOC and OCWD, to produce additional groundwater for use within IRWD and transfer imported water from IRWD to south Orange County in case of emergencies. IRWD has approved the operating agreement with certain south Orange County water agencies to fund the interconnection facilities needed to affect the

emergency transfer of water. MWDOC and OCWD have also both approved the operating agreement. This was confirmed by Mr. Cook.

ITEMS RECEIVED TOO LATE TO BE AGENDIZED - None.

CONSENT CALENDAR

On MOTION by Matheis, seconded and unanimously carried (Swan absent), CONSENT CALENDAR ITEMS 3 THROUGH 10 WERE APPROVED AS PRESENTED.

3. MINUTES OF REGULAR BOARD MEETING

Recommendation: That the minutes of the August 26, 2013 Regular Board meeting be approved as presented.

4. RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

Recommendation: That the Board ratify/approve the meetings and events for Steven LaMar, Mary Aileen Matheis, Peer Swan, and Douglas Reinhart.

5. ACWA REGION 10 ELECTION FOR THE 2014-15 TERM

Recommendation: That the Board support the candidates as selected by the ACWA Region 10 Nominating Committee and authorize the General Manager to sign the Region 10 Board Ballot for the 2014-15 term.

6. ISDOC PROPOSED BYLAW AMENDMENTS

Recommendation: That the Board authorize staff to submit comments, as deemed appropriate by the Board, before September 20, 2013, for consideration by the Independent Special Districts of Orange County.

7. STATE LEGISLATIVE UPDATE

Recommendation: Receive and file.

8. COUNTY OF ORANGE LEGISLATIVE PLATFORM REQUEST FOR COMMENT

Recommendation: That the Board authorize staff to submit comments for consideration in the County of Orange 2014 legislative platform by the County of Orange, as deemed appropriate by the Board, before September 19, 2013.

CONSENT CALENDAR (CONTINUED)

9. VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR PORTOLA CENTER (TENTATIVE TRACT MAPS 15353 AND 17300)

Recommendation: That the Board approve the Verification of Sufficient Water Supplies for Portola Center (Tentative Tract Maps 15353 and 17300).

10. VERIFICATION OF SUFFICIENT WATER SUPPLIES FOR CITY OF IRVINE PLANNING AREA 5B (TENTATIVE TRACT MAP 17532)

Recommendation: That the Board approve the Verification of Sufficient Water Supplies for Planning Area 5B (Tentative Tract Map 17532).

ACTION CALENDAR

SALT MANAGEMENT PLAN CONSULTANT SELECTION

Using a PowerPoint presentation, Director of Water Resources Weghorst discussed the need for a Salt Management Plan and showed the long-term 12-month running average of total dissolved solids (TDS) concentrations from the Michelson Water Recycling plant. Mr. Weghorst described the components of the proposed Salt Management Plan including: 1) an analysis of historic and future trends in TDS considering water supplies, water uses, water treatment, and current and future projects including MWRP Phase II, Wells 21 and 22 treatment plant, Baker Water Treatment Plant, Syphon Reservoir interim improvements and expansion, Poseidon projects, etc; 2) an evaluation of recycled water use requirements; 3) flow and water quality monitoring; 4) salt management strategies including cost estimates and implementation plan; and 5) policy recommendations.

Director Weghorst reviewed the consultant selection process. He said that on May 3, 2013, staff requested qualifications from 13 firms and that five firms submitted proposals including CDM Smith, CH2M Hill, MWH Americas, HDR Engineering Inc. and PACE Engineering. He said that following a review of the methods, experience and values associated with the qualifications and proposals, CDM Smith, CH2M Hill and HDR Engineering Inc. were selected for interviews. He said that based on the results of the interviews and a final review of the proposals, staff recommends awarding the Professional Services Agreement to HDR Engineering Inc. He said key strengths of its proposal included excellent project understanding; superior knowledge of IRWD's potable, non-potable water systems and future projects; scope of work is the most consistent with IRWD objectives; it has an experienced team of engineers who completed a similar project for the city of Phoenix; the costs are consistent with the scope of work; optional flow and water quality monitoring effort that staff believes may be necessary to finalize the Salt Management Plan if it is determined that existing data is not sufficient to accurately depict the District's current recycled water system salt balance. Mr. Weghorst introduced Mr. Jim Cathcart and Mr. Ben Porter from HDR to the Board.

Director LaMar reported that this item was reviewed by the Water Resources Policy and Communications Committee on September 4, 2013, and the Committee concurs with the staff recommendation. Following discussion, it was agreed that staff will bring back this item periodically to the Board for review and input. On MOTION by LaMar, seconded and unanimously carried, THE BOARD AUTHORIZED A BUDGET INCREASE IN THE AMOUNT OF \$176,400, FROM \$220,000 TO \$396,400, FOR PROJECT 30380 (3779); APPROVED AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$344,300 FOR PROJECT 30380 (3779); AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH HDR ENGINEERING INC. IN THE AMOUNT OF \$243,000 TO DEVELOP A SALT MANAGEMENT PLAN.

STRAND RANCH PUMP SETTING OPTIMIZATION AND WELLHEAD MONITORING EQUIPMENT DESIGN

Using a PowerPoint presentation, Director of Water Resources Weghorst reported that in 2010 and 2011, six new wells were constructed and one existing well was rehabilitated at the Strand Ranch Integrated Banking Project by Bakersfield Well and Pump. In April 2013, three wells began pumping and discharging to the Cross Valley Canal with three additional wells that started up in May 2013. Using a chart, Mr. Weghorst described why pumping water levels have been lower than expected as compared to original design estimates. He said that as a result of these observations, a Pump Setting Optimization Study needs to be performed which will include a new hydrogeologic assessment of what is expected in terms of a worst case scenario for static water levels as well as drawdowns due to the pumping of the Strand Ranch Wells. The study will also include hydraulic analyses needed to establish new well pump settings and to verify the ability to meet the 36 cfs production requirements. Plans and specifications and the other components of a complete bid package will be prepared to drop the pump bowls and to install swedged liners and drop tubes where necessary. In addition, a need for remote wellhead monitoring has been identified and remote telemetry equipment needs to be designed for the Strand Ranch wells. It is expected that the construction work resulting from these work activities would be put out to bid in one package.

Mr. Weghorst said that to perform the Pump Setting Optimization Study, staff has negotiated scopes of work, cost estimates and schedules with Thomas Harder and Company (THC) and Kennedy/Jenks Consultants (KJC). He said that THC is uniquely qualified to perform the work because of its unique numerical groundwater flow model of the Kern Fan area that was developed for Rosedale-Rio Bravo Water Storage District. This model is currently being used to evaluate potential groundwater level changes associated with various recharge and recovery scenarios within the Kern Fan area including implementation of IRWD Stockdale Integrated Banking Project. THC is well recognized for its technical capabilities in Kern County, and the knowledge and skills that it offers relative to completing the Well Pump Setting Optimization Study exceed what was available to IRWD during the design of the Strand Ranch well field. He further said that KJC is uniquely qualified to perform the work because it provided design services for the Strand Ranch Recovery Facilities Pipeline Facilities and Well Equipping Project where it designed all wellhead equipment including the motor control centers for each of the seven Strand Ranch Wells.

Following a discussion on the costs to perform the hydrogeologic analysis, on MOTION by Swan, seconded and unanimously carried, THE BOARD APPROVED AN EXPENDITURE AUTHORIZATION FOR PROJECT 11289 (2812) IN THE AMOUNT OF \$111,100; AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT AND SOLE SOURCE PROCUREMENT JUSTIFICATION WITH THOMAS HARDER & COMPANY IN THE AMOUNT NOT TO EXCEED \$19,650 TO PERFORM A HYDROGEOLOGIC ANALYSIS OF WATER LEVELS; AND AUTHORIZED THE GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT AND A SOLE SOURCE PROCUREMENT JUSTIFICATION WITH KENNEDY/JENKS CONSULTANTS IN THE AMOUNT OF \$70,827 TO PERFORM A HYDRAULIC ANALYSIS AND TO DEVELOP DESIGNS, SPECIFICATIONS AND A COMPLETE BID PACKAGE TO LOWER THE BOWLS AND TO INSTALL OTHER IMPROVEMENTS ON THE WELLS AT THE STRAND RANCH AND TO INSTALL REMOTE TELEMETRY EQUIPMENT AT EACH SITE.

GENERAL MANAGER'S REPORT

General Manager Cook reported that OCWD has delayed the annexation process to October and also that they will be meeting with the Groundwater Producers on September 23, 2013.

Mr. Cook introduced Ms. Jenny Roney, the District's new Human Resources Director, to the Board. Ms. Roney provided a brief report on her past work experience and education.

DIRECTORS' COMMENTS

Director Withers reported on his attendance at an OCSD inaugural Public Affairs Subcommittee meeting and that he will be serving on that Committee. He also said that he will be attending a LAFCO Commissioners meeting this Wednesday.

Director Swan said that he attended the OCSD Honor Walk Inductee event and a WACO monthly meeting. He said that he will be attending an ACC-OC realignment meeting this Thursday. In response to Director Swan's inquiry if a Board member has the ability to review all financial information by making a request to the General Manager, President Reinhart said that he will discuss the matter with the General Manager and provide a response to Director Swan.

Director LaMar said that he did not attend the Southern California Storm Water Task Force Committee meeting and that last Friday he attended ACWA's Task Force meeting in Sacramento.

Director Reinhart reported that he will be attending the WaterReuse Symposium and Board meeting in Colorado at the end of this week. He also said that he has been spending a lot of time on SOCWA issues and that it will select an interim General Manager in a week or two with the hiring process forthcoming.

Consultant Jim Reed reported on his attendance at an ISDOC Executive Committee meeting, a SOCWA Board meeting, and a WACO meeting on behalf of the District.

Consultant Bruce Newell also reported on his attendance at local meetings, including a facilitated meeting on an emergency plan with the Orange County Fire Authority.

ADJOURNMENT

President Reinhart adjourned the meeting at 6:10 p.m.

APPROVED and SIGNED this 23rd day of September, 2013.

President, IRVINE RANCH WATER DISTRICT

Secretary IRVINE RANCH WATER DISTRICT

APPROVED AS TO FORM:

Legal Counsel - Bowie, Arneson, Wiles & Giannone

September 23, 2013

Prepared and

submitted by: B. Mourant *blm*

Approved by: P. Cook *P. Cook*

CONSENT CALENDAR

RATIFY/APPROVE BOARD OF DIRECTORS' ATTENDANCE AT MEETINGS AND EVENTS

SUMMARY:

Pursuant to Resolution 2006-29 adopted on August 28, 2006, approval of attendance of the following events and meetings are required by the Board of Directors.

Events/Meetings

Steven LaMar

| | |
|--------------------|--|
| September 6, 2013 | ACWA Federal Affairs Meeting |
| September 10, 2013 | OCBC Infrastructure Committee Meeting |
| September 10, 2013 | NWRI Operations Committee Meeting |
| September 12, 2013 | COAST Fire Working Group Meeting with OCFA |
| September 24, 2013 | Senate Informational Hearing on the Water Bond, Sacramento |
| September 24, 2013 | ACWA Headwaters Task Force Meeting, Sacramento |
| September 26, 2013 | NWRI Board Meeting Meeting |
| October 8, 2013 | DWR/NWRI Drought Response Workshop |
| October 17, 2013 | ACWA Region 10 Program, Irvine |

Mary Aileen Matheis

| | |
|--------------------|--|
| September 19, 2013 | IRWD Representative - City of Tustin's Re-dedication ceremony of the Rawlings Reservoirs |
| October 3-4, 2013 | ACWA's Continuing Legal Education Workshop, Newport Beach |

Douglas Reinhart

| | |
|--------------------|--|
| September 11, 2013 | Monthly meeting with General Manager Paul Cook regarding District activities |
| September 12, 2013 | Meeting with EOCWD regarding Settlement Offer |
| September 13, 2013 | Baker Water Treatment Plant Presentation to SMWD |
| September 18, 2013 | Baker Water Treatment Plant Presentation to TCWD |
| September 24, 2013 | Baker Water Treatment Plant Presentation to ETWD |
| September 25, 2013 | South Orange County Agencies Meeting |

Peer Swan

| | |
|--------------------|--|
| September 18, 2013 | Interview for ACWA VP Position, Sacramento |
| September 24, 2013 | ACWA Headwaters Task Force Meeting, Sacramento |

Consent Calendar: Ratify/Approve Board of Directors' Attendance at Meetings and
Events

September 23, 2013

Page 2

John Withers

September 16, 2013


Baker Water Treatment Plant Presentation to MNWD

RECOMMENDATION:

THAT THE BOARD RATIFY/APPROVE THE MEETINGS AND EVENTS LISTED FOR
STEVEN LAMAR, MARY AILEEN MATHEIS, PEER SWAN, DOUGLAS REINHART,
AND JOHN WITHERS.

LIST OF EXHIBITS:

None.

September 23, 2013
Prepared and Submitted by: Various
Approved by: Paul Cook 

CONSENT CALENDAR

STRATEGIC MEASURES DASHBOARD

SUMMARY:

Provided as Exhibits “A”, “B”, and “C” are the Strategic Measures Dashboard and informational items for Board review.

Please note staff is presenting the information in a new format in an effort to reflect all “gauges” in a consistent manner. The dot reflects the target goal, while the shaded area reflects actual performance.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE STRATEGIC MEASURES DASHBOARD AND INFORMATION ITEMS.

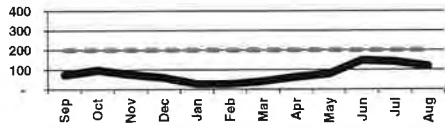
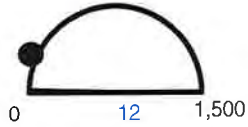
LIST OF EXHIBITS:

- Exhibit “A” – Strategic Measures Dashboard
- Exhibit “B” – Dyer Road Wellfield Status
- Exhibit “C” – Reservoir Data

August 2013

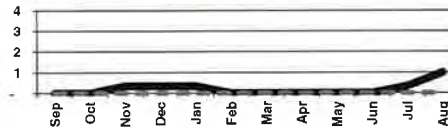
Reliability-Potable/Nonpotable

Target <= 200 customer hours out of service this month



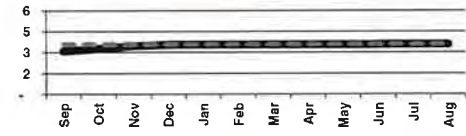
Sewer Spills

Target = 0 Spills this month



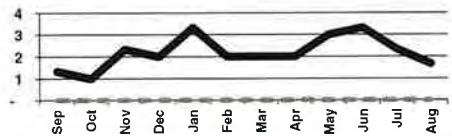
OCSD CORF Flows

Target <=3.58 MGD
CORF flow to OCSD this month



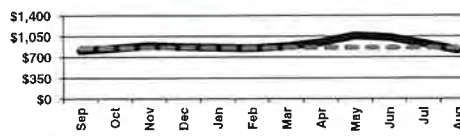
OSHA Recordables

Target = 0 reportable accidents this month



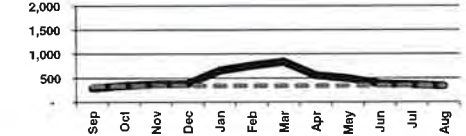
Water System Cost--Potable

Target <= \$857/af delivered this month



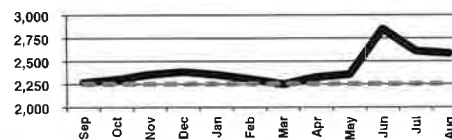
Water System Cost--Nonpotable

Target <= \$343/af delivered this month



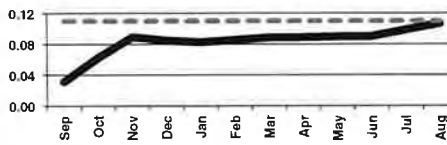
Wastewater Cost

Target <= \$2,254/MG processed this month



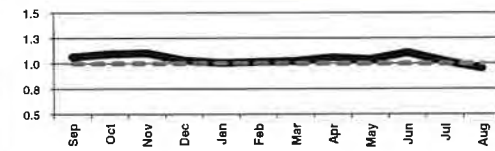
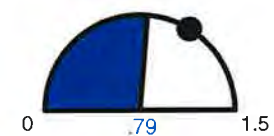
MWRP Energy Cost per kWh

Target <=0.110 cost per kWh this month



Real Property Performance

Target >= 1.0 (net income/goal) last month



● =Target; Blue=Actual
00.00 Figure for Current Month

----- Target shown on trend graph
———— 3-month rolling average

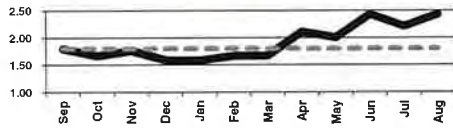
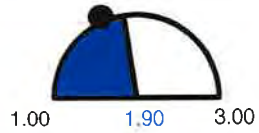
Note: New Format

**IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES DASHBOARD**

August 2013

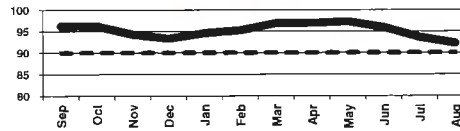
Overhead Ratio

Target \leq 1.80 (G&A expenses/
direct labor) this month



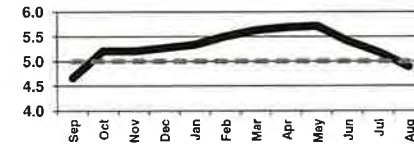
Customer Satisfaction

Target \geq 90% satisfaction
this month



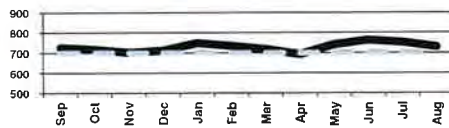
Employee Satisfaction

Target \geq 5.0 score
this month



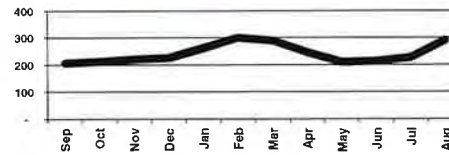
DATS Well Production

Target \geq 700 at
this month



IDP Treated Water

Target \geq 425 at
this month



● =Target; **Blue=Actual**
00.00 Figure for Current Month

----- Target shown on trend graph
———— 3-month rolling average

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Reliability-Potable/Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Water Operations

Definition of Measure:

The relative magnitude of system outages due to failures or scheduled maintenance for Potable and Non Potable Water.

Method:

Summation of the time in hours any part of the system was out of service times the number of customers affected by the given outage during the month.

Data Collection

Data was derived from the CSR database for customer based reports of "no water" and from the work order database for scheduled maintenance requiring the shut down of water service during repairs.

Explanation of Variance

1. June 2013 - Two valve replacement repairs in an intersection required a large shutdown.
2. July and August 2013 total hours for service repairs were below target.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 68.70 | 200.00 | Thru: August 2013 |
| October 2012 | 130.00 | 200.00 | Goal: 200.00 |
| November 2012 | 34.10 | 200.00 | |
| December 2012 | 20.80 | 200.00 | |
| January 2013 | 29.50 | 200.00 | |
| February 2013 | 32.70 | 200.00 | |
| March 2013 | 64.20 | 200.00 | |
| April 2013 | 97.90 | 200.00 | |
| May 2013 | 77.70 | 200.00 | |
| June 2013 | 268.80 | 200.00 | |
| July 2013 | 77.08 | 200.00 | |
| August 2013 | 11.75 | 200.00 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

Sewer Spills

MONTHLY STATUS REPORT

Metric Owner: Gregory Springman Collection System Manager

Definition of Measure:

Number of sewer overflows of any quantity, regardless of cause, in IRWD's sanitary sewer collection system. This does not include spills from private sewers within IRWD's service area. IRWD has no control over private spills and is not responsible for them. However, it should be noted that IRWD will assist the County Health Care Agency in responding to and cleaning up private spills in the interest of the community.

Method:

Total number of IRWD sewer spills

Data Collection

Data is obtained from the California State Water Boards CIWQS data base for reporting SSO's.

Explanation of Variance

1. November 2012 - Irvine, blockage caused by grease in a 8-in VCP sewer main. Volume estimated at 2,200 gals of sewer system overflow (SSO) with 1,000 gals of wastewater contained and recovered.
2. July 2013 - Lake Forest, blockage caused by roots in a 8-in VCP sewer main. Volume estimated at 50 gals of SSO with 50 gals of wastewater contained and recovered.
3. August 2013 - MWRP South Sewer Tie-in, sewage bypass discharge hose failed at the discharge connection. Volume estimated at 6,800 gals of SSO with 6,800 gals of wastewater contained and recovered.
4. August 2013 - Lake Forest, blockage caused by construction debris in a 8-in VCP sewer main during the Portola Lift Station Abandonment Project. Volume estimated at 50 gals of SSO with 50 gals of wastewater contained and recovered.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 0 | 0 | Thru: August 2013 |
| October 2012 | 0 | 0 | Goal: 0 |
| November 2012 | 1.00 | 0 | |
| December 2012 | 0 | 0 | |
| January 2013 | 0 | 0 | |
| February 2013 | 0 | 0 | |
| March 2013 | 0 | 0 | |
| April 2013 | 0 | 0 | |
| May 2013 | 0 | 0 | |
| June 2013 | 0 | 0 | |
| July 2013 | 1.00 | 0 | |
| August 2013 | 2.00 | 0 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

OCSD CORF Flows

MONTHLY STATUS REPORT

Metric Owner: Patrick Shield Director of Water Operations

Definition of Measure:

Estimated CORF flow for current FY. CORF flow ownership as of the end of FY 2009/2010 was 8.62 MGD.

Method:

IRWD's CORF flow is derived by using the actual Main Street Flume Meter flow and subtracting the MWRP biosolid discharge flow and all non Revenue Area 14 (IRWD) flows tributary to the Main Street Flume meter/MWRP and adding in the San Joaquin Hills Planned Community flow and flow discharges from the Gas Recovery System (Formerly Laidlaw) for the FY four calendar months with the highest flow totals multiplied by three, averaging the result thereof with the same result of the same calculation for the preceding two fiscal years and adding in the current IBC transfer flow.

Note: All of the Newport Coast flows with the exception of the San Joaquin Hills Planned Community and Gas Recovery System flow are excluded from IRWD's CORF flow calculation. The OCSD's 1988 Downcoast Area Agreement only requires for IRWD to provide local wastewater collection service and requires OCSD to provide wastewater regional collection, transmission, treatment and disposal for that area.

Data Collection

The OCSD's Monthly Gallonage Flow Summary Report provides the actual flows used in calculating IRWD's CORF flow. This includes the Main Street Flume Meter actual monthly flow. All non Revenue Area 14 (IRWD) flows that are tributary to the Main Street Flume Meter is adjusted every year based on the results of OCSD's Flow Verification Study. The San Joaquin Hills Planned Community flow is adjusted every year based on the results of IRWD's Flow Verification Study. The Gas Recovery System flow is the actual monthly meter flow. The IBC transfer flow is adjusted every five years based on the results of OCSD's Flow Verification Study.

Explanation of Variance

1. July and August 2013 are estimated pending receipt of actual flows from OCSD.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 3.26 | 4.95 | <i>Thru:</i> August 2013 |
| October 2012 | 3.54 | 4.95 | <i>Goal:</i> 3.58 |
| November 2012 | 3.55 | 4.95 | |
| December 2012 | 3.55 | 4.95 | |
| January 2013 | 3.55 | 4.95 | |
| February 2013 | 3.55 | 4.95 | |
| March 2013 | 3.55 | 4.95 | |
| April 2013 | 3.55 | 4.95 | |
| May 2013 | 3.55 | 4.95 | |
| June 2013 | 3.58 | 4.95 | |
| July 2013 | 3.58 | 3.58 | |
| August 2013 | 3.58 | 3.58 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

OSHA Recordables

MONTHLY STATUS REPORT

Metric Owner: Ken Erwin

District Safety & Security Manager

Definition of Measure:

OSHA Recordables are a monthly measure of injuries and illnesses that occurred and must be entered on the OSHA 300 (Log of Work Related Injuries and Illnesses), in conformance with OSHA requirements. This measure is standardized not only in the water/wastewater industry, but throughout industries nationwide.

Method:

OSHA Recordables = Number of OSHA Recordable cases occurring during the subject month.

Data Collection

All injuries/illnesses and near-misses are reported to the District Safety & Security Manager immediately when they occur. All are investigated and cases meeting the recordable definition are logged. This measure simply reports the number of accidents whose occurrence date is within the calendar month.

Explanation of Variance

1. June 2013 - Water Maintenance Technician I incurred lumbar strain while lifting PRV Vault lid at Pelican Hill.
2. June 2013 - Water Maintenance Worker broke front two teeth when bungee cord slipped from hydro excavator.
3. July 2013 - Water Maintenance Worker sprained/strained right ankle while working at 7 Cold Stream in Irvine.
4. July 2013 - Customer Service Field Representative sustained low back strain when lifting steel meter lid at Newport Coast.
5. August 2013 - Collections Systems Tech II incurred lumbar strain while unloading truck at MWRP.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|------------------------------------|
| September 2012 | 2.00 | 0 | <i>Thru:</i> August 2013 |
| October 2012 | 1.00 | 0 | <i>Goal:</i> 0 |
| November 2012 | 4.00 | 0 | |
| December 2012 | 1.00 | 0 | |
| January 2013 | 5.00 | 0 | |
| February 2013 | 0 | 0 | |
| March 2013 | 1.00 | 0 | |
| April 2013 | 5.00 | 0 | |
| May 2013 | 3.00 | 0 | |
| June 2013 | 2.00 | 0 | |
| July 2013 | 2.00 | 0 | |
| August 2013 | 1.00 | 0 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

Water System Cost--Potable

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig Accountant

Definition of Measure:

Total cost of potable water delivered to IRWD's customers this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and power cost billing cycles. Thus, monthly expenses do not match up with their corresponding water sales.

Method:

Sum of all potable water costs accrued this month divided by the quantity of potable water sold this month.

Data Collection

Potable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold). In order to track this item on a monthly basis, the labor included for the current month is based on the budget.

Explanation of Variance

1. August 2013 - Potable Water System sold more water than budget by 492.8 A/F. The demands were met primarily by pumped water (430.8 A/F over budget). Also, payroll information was not available at the time of reporting therefore an estimate based on budget was used.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 866.00 | 766.00 | <i>Thru:</i> August 2013 |
| October 2012 | 960.00 | 920.00 | <i>Goal:</i> 857.00 |
| November 2012 | 849.00 | 808.00 | |
| December 2012 | 813.00 | 914.00 | |
| January 2013 | 916.00 | 855.00 | |
| February 2013 | 816.00 | 893.00 | |
| March 2013 | 916.00 | 854.00 | |
| April 2013 | 1,110.00 | 935.00 | |
| May 2013 | 1,152.00 | 893.00 | |
| June 2013 | 837.00 | 824.00 | |
| July 2013 | 795.00 | 845.00 | |
| August 2013 | 826.00 | 857.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Water System Cost--Nonpotable

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig Accountant

Definition of Measure:

Total cost of nonpotable water delivered to IRWD's customer this month, on a unit basis (\$/acre-foot). These monthly costs can vary greatly due to variation in water sales and source water.

Method:

Sum of all nonpotable water costs accrued this month divided by the quantity of nonpotable water sold this month.

Data Collection

Nonpotable water costs collected from current month general ledger. This cost includes labor, power, distribution, and other costs related to tertiary treatment and reclaimed water distribution. The quantity of water sold is collected from the Water Usage Variance Report, which summarizes metered water sales. Wide fluctuations in this measure may occur due to the billing delays for such expenses as electrical power (ie, bills are not paid in the same month as the water is sold). In order to track this item on a monthly basis, the labor included for the current month is based on the budget.

Explanation of Variance

1. August 2013 cost of the nonpotable water system is over budget primarily due to additional water purchased for the recycled system as a result of unexpected low rainfall (\$.3M); and chemical expenses were over budget for the recycled system (\$.09M). Also, payroll information was not available at the time of reporting therefore an estimate based on budget was used.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 297.00 | 321.00 | <i>Thru:</i> August 2013 |
| October 2012 | 428.00 | 454.00 | <i>Goal:</i> 343.00 |
| November 2012 | 420.00 | 448.00 | |
| December 2012 | 313.00 | 475.00 | |
| January 2013 | 1,256.00 | 1,281.00 | |
| February 2013 | 715.00 | 1,022.00 | |
| March 2013 | 546.00 | 964.00 | |
| April 2013 | 429.00 | 499.00 | |
| May 2013 | 526.00 | 412.00 | |
| June 2013 | 209.00 | 338.00 | |
| July 2013 | 360.00 | 282.00 | |
| August 2013 | 443.00 | 343.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Wastewater Cost

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig Accountant

Definition of Measure:

Total cost of collection and treatment (primary, secondary, and solids disposal) of wastewater, on a unit basis (\$/million gallons) for this month.

Method:

(MWRP cost of collections(G/L #530) + MWRP cost of treatment(G/L #551,552,565) + OCSD cost(G/L #535,555) + SMWD cost(G/L #531,556)) divided by the total sewage flows emanating from OCSD District #14 (Includes MWRP flow + OCSD flow + SMWD flow)

Data Collection

Data used for this measure are collected from the general ledger and from Orange County Sanitation District (OCSD) and Santa Margarita Water District (SMWD) staff. Costs and flows from OCSD District #7 are not included in the calculation. In order to track this item on a monthly basis, the labor included for the current month is based on the budget.

Explanation of Variance

1. August 2013 - Wastewater system average cost came close to budget. Also, payroll information was not available at the time of reporting therefore an estimate based on budget was used.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 2,268.00 | 2,333.00 | <i>Thru:</i> August 2013 |
| October 2012 | 2,392.00 | 2,409.00 | <i>Goal:</i> 2,254.00 |
| November 2012 | 2,409.00 | 2,438.00 | |
| December 2012 | 2,353.00 | 2,452.00 | |
| January 2013 | 2,300.00 | 2,217.00 | |
| February 2013 | 2,263.00 | 2,228.00 | |
| March 2013 | 2,191.00 | 2,229.00 | |
| April 2013 | 2,531.00 | 2,323.00 | |
| May 2013 | 2,356.00 | 2,358.00 | |
| June 2013 | 3,662.00 | 2,196.00 | |
| July 2013 | 1,819.00 | 2,126.00 | |
| August 2013 | 2,279.00 | 2,254.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

MWRP Energy Cost per kWh

MONTHLY STATUS REPORT

Metric Owner: Patrick Shield Director of Water Operations

Definition of Measure:

Actual MWRP Cost per kWh used at MWRP with new generating facility.

Method:

MWRP cost per kWh is calculated by the monthly total energy purchased from imported SCE electricity, purchased natural gas for the generators from Coral Energy, and SCG natural gas transportation charge divided by the total monthly kWh generated and imported from SCE. We then add in actual maintenance costs, including g/a.

Data Collection

Data collected from actual monthly SCE, Coral Energy and SCG Invoices. Total kWh is collected from the two generator kWh meters and SCE main electric meter.

Explanation of Variance

1. July 2013 energy cost at MWRP is \$0.115 per kWh.
2. August 2013 energy costs at MWRP is \$0.1147 per kWh. It is higher in the current fiscal year due to the recent SCE increase.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|------------------------------------|
| September 2012 | .09 | .08 | <i>Thru:</i> August 2013 |
| October 2012 | .09 | .08 | <i>Goal:</i> .11 |
| November 2012 | .08 | .08 | |
| December 2012 | .08 | .08 | |
| January 2013 | .09 | .08 | |
| February 2013 | .09 | .08 | |
| March 2013 | .09 | .08 | |
| April 2013 | .09 | .08 | |
| May 2013 | .09 | .08 | |
| June 2013 | .09 | .08 | |
| July 2013 | .12 | .11 | |
| August 2013 | .12 | .11 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Real Property Performance

MONTHLY STATUS REPORT

Metric Owner: Jennifer Davis

Debt and Investment Analyst

Definition of Measure:

This is a monthly measure of performance by IRWD's various enterprise activities, including residential and commercial real estate, Strawberry Farms Golf Course, and wireless communications leases.

Method:

Monthly Enterprise Return = Actual Net Income/Budgeted Net Income x 100

Data Collection

The various enterprise activities generate revenues and expenses at different frequencies through the year. Except for the real estate projects, the enterprise projects are primarily revenue generating activities with relatively little associated expenses. The measure reflects a comparison between the actual and budgeted net income of the various projects on a monthly basis.

Explanation of Variance

1. August 2013 performance was lower due to timing of insurance invoice at Sycamore Canyon property and rental income was lower due to vacancies.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 1.20 | 1.00 | <i>Thru:</i> August 2013 |
| October 2012 | 1.08 | 1.00 | <i>Goal:</i> 1.00 |
| November 2012 | 1.03 | 1.00 | |
| December 2012 | .98 | 1.00 | |
| January 2013 | 1.01 | 1.00 | |
| February 2013 | 1.06 | 1.00 | |
| March 2013 | 1.01 | 1.00 | |
| April 2013 | 1.11 | 1.00 | |
| May 2013 | 1.00 | 1.00 | |
| June 2013 | 1.21 | 1.00 | |
| July 2013 | .86 | 1.00 | |
| August 2013 | .79 | 1.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

Overhead Ratio

MONTHLY STATUS REPORT

Metric Owner: Jessica Craig Accountant

Definition of Measure:

Overhead Ratio is a measure of general and administrative (G&A) overhead expenses compared to direct labor expenses.

Method:

Ratio of total G&A expenses to total direct labor (including regular and overtime wages).

Data Collection

G&A expenses are summarized from the general ledger and include all costs incurred that are not directly accounted to mission-critical work (charged to *g/l* #792). Direct labor expenses are the hourly staff charges accounted to mission-critical work (generally charged to expense codes #110 and #120). Benefits are considered G&A, not direct labor expenses.

Explanation of Variance

1. G&A overhead ratio is lower this month because of the following reasons:
2. Data Processing PC Network contract invoices and Benefits for Retiree Health Costs Assistance Program expensed in one month due to immateriality.
3. Direct labor used to allocate cost is higher this month because July's payroll included the holiday pay and a one week reversal for \$172,302.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 2.40 | 1.80 | Thru: August 2013 |
| October 2012 | 1.60 | 1.80 | Goal: 1.80 |
| November 2012 | 1.30 | 1.80 | |
| December 2012 | 1.88 | 1.80 | |
| January 2013 | 1.57 | 1.80 | |
| February 2013 | 1.55 | 1.80 | |
| March 2013 | 1.91 | 1.80 | |
| April 2013 | 2.87 | 1.80 | |
| May 2013 | 1.24 | 1.80 | |
| June 2013 | 3.20 | 1.80 | |
| July 2013 | 2.20 | 1.80 | |
| August 2013 | 1.90 | 1.80 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

Customer Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gina Jackson

Customer Service Manager

Definition of Measure:

Customer Satisfaction is measured by IRWD's Customer Satisfaction Index. The index is measured by sending surveys to a statistically-significant, random selection of customers that have called IRWD for some type of service. Services range from answering questions about water conservation or billing to repairing a sewer blockage in the street. The surveys allow the customer to rate IRWD's response to their request in eight categories. Each category is rated from 1 to 5, with 1 indicating the highest level of satisfaction. A total score of 100 indicates the highest level of satisfaction in all eight categories. The scores of all responses in the subject month are a weighted average for the monthly index figure.

Method:

Data Collection

Surveys are mailed at the end of each work week for the customer requests completed that week. The monthly index reflects the surveys received within the subject month.

Explanation of Variance

1. Total Overall Satisfaction =92%
 Satisfaction =84%
 Timely = 89%
 Phone = 94%
 Field Contact = 100%

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 97.00 | 90.00 | Thru: August 2013 |
| October 2012 | 93.00 | 90.00 | Goal: 90.00 |
| November 2012 | 93.00 | 90.00 | |
| December 2012 | 94.00 | 90.00 | |
| January 2013 | 97.00 | 90.00 | |
| February 2013 | 95.00 | 90.00 | |
| March 2013 | 99.00 | 90.00 | |
| April 2013 | 97.00 | 90.00 | |
| May 2013 | 96.00 | 90.00 | |
| June 2013 | 95.00 | 90.00 | |
| July 2013 | 90.00 | 90.00 | |
| August 2013 | 92.00 | 90.00 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

Employee Satisfaction

MONTHLY STATUS REPORT

Metric Owner: Gretchen Maswadeh Human Resources Manager

Definition of Measure:

Level of employee satisfaction with employment at IRWD.

Method:

Average of all scores on surveys for performance evaluations presented this month

Data Collection

A survey is sent to each employee receiving a performance evaluation this month. The survey simply asks the employee to rate his/her overall employment satisfaction on a scale of 1 to 6 (1 being very dissatisfied and 6 being very satisfied). The ratings are compiled and averaged by Human Resources.

Explanation of Variance

1. 6 surveys were returned of 31 surveys sent (19%). 4 of 31 respondents (67%) rated satisfaction as 5 or 6 on a scale of 1 to 6. In the 12 month period ending August 2013, 93 surveys have been returned of 292 surveys sent (32%). 80 of 93 respondents (86%) rated satisfaction as 5 or 6 on a scale of 1 to 6. 12 month average rating is 5.31%

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | From: September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 5.00 | 5.00 | Thru: August 2013 |
| October 2012 | 5.64 | 5.00 | Goal: 5.00 |
| November 2012 | 4.98 | 5.00 | |
| December 2012 | 5.20 | 5.00 | |
| January 2013 | 5.83 | 5.00 | |
| February 2013 | 5.50 | 5.00 | |
| March 2013 | 5.57 | 5.00 | |
| April 2013 | 6.00 | 5.00 | |
| May 2013 | 5.57 | 5.00 | |
| June 2013 | 4.67 | 5.00 | |
| July 2013 | 5.33 | 5.00 | |
| August 2013 | 4.67 | 5.00 | |

IRVINE RANCH WATER DISTRICT
 STRATEGIC MEASURES

DATS Well Production

MONTHLY STATUS REPORT

Metric Owner: Tom Roberts Operations Manager

Definition of Measure:

Number of acre-feet of water produced by Dyer Road wells C-8 and C-9 to supply water to the Deep Aquifer Treatment System (DATS).

Method:

Summation of production from wells C-8 and C-9.

Data Collection

Data collected from meters at wells.

Explanation of Variance

1. August 2013 - DATS wells produced 42 AF higher than expected due to uninterrupted operation for the month.

MONTHLY DATA

| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|-----------------------------|
| September 2012 | 703.00 | 700.00 | <i>Thru:</i> August 2013 |
| October 2012 | 704.00 | 700.00 | <i>Goal:</i> 700.00 |
| November 2012 | 702.00 | 700.00 | |
| December 2012 | 732.00 | 700.00 | |
| January 2013 | 811.00 | 700.00 | |
| February 2013 | 660.00 | 700.00 | |
| March 2013 | 682.00 | 700.00 | |
| April 2013 | 736.00 | 700.00 | |
| May 2013 | 806.00 | 700.00 | |
| June 2013 | 749.00 | 700.00 | |
| July 2013 | 700.00 | 700.00 | |
| August 2013 | 742.00 | 700.00 | |

IRVINE RANCH WATER DISTRICT
STRATEGIC MEASURES

IDP Treated Water

MONTHLY STATUS REPORT

Metric Owner: Tom Roberts Operations Manager

Definition of Measure:

Number of acre-feet of treated water produced by the Irvine Desalter Project (IDP).

Method:

Difference between final effluent volume and discharge to storm drain volume.

Data Collection

Data collected from final effluent and discharge to storm drain meters.

Explanation of Variance

1. August 2013 - IDP wells produced 418 AF and the goal was increased to 425 AF to reflect the new production capability.

MONTHLY DATA

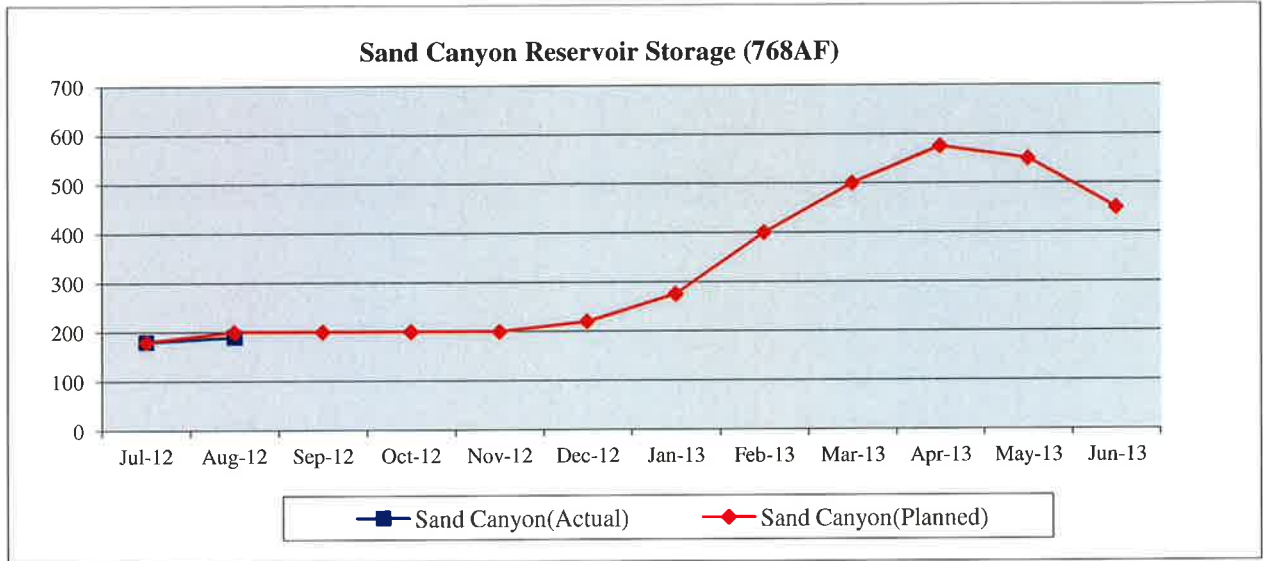
| <u>Month</u> | <u>Value</u> | <u>Goal</u> | <i>From:</i> September 2012 |
|----------------|--------------|-------------|------------------------------------|
| September 2012 | 225.00 | 350.00 | <i>Thru:</i> August 2013 |
| October 2012 | 218.00 | 350.00 | <i>Goal:</i> 425.00 |
| November 2012 | 221.00 | 350.00 | |
| December 2012 | 239.00 | 350.00 | |
| January 2013 | 324.00 | 350.00 | |
| February 2013 | 336.00 | 350.00 | |
| March 2013 | 206.00 | 350.00 | |
| April 2013 | 197.00 | 350.00 | |
| May 2013 | 230.00 | 350.00 | |
| June 2013 | 216.00 | 350.00 | |
| July 2013 | 237.00 | 300.00 | |
| August 2013 | 418.00 | 425.00 | |

Exhibit "B"

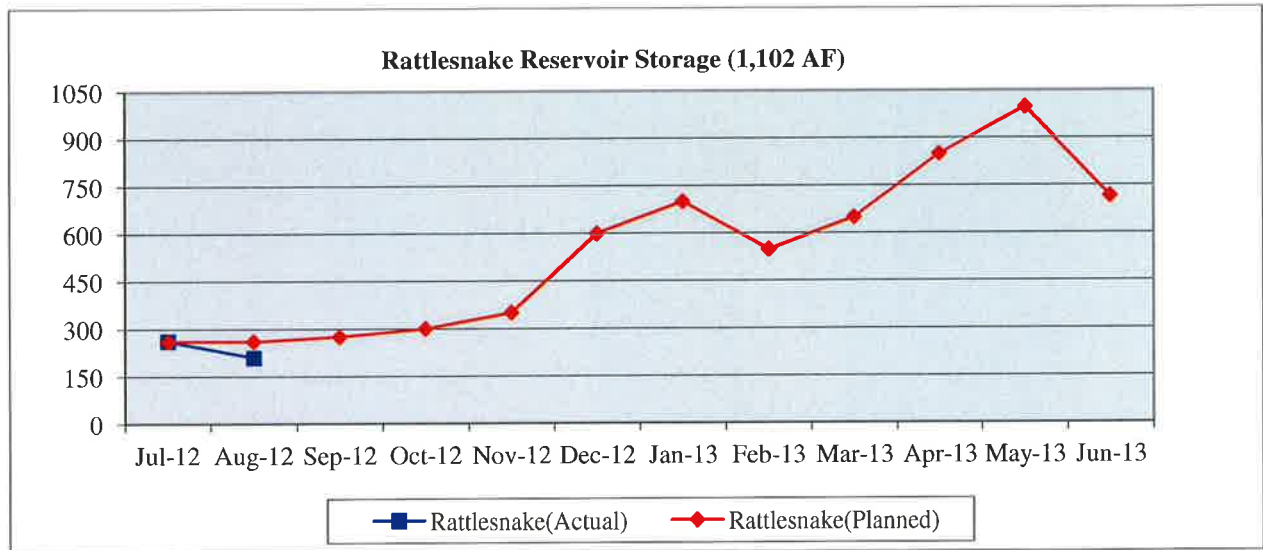
| DYER ROAD WELL FIELD STATUS | | | | | | | | Aug-13 |
|-----------------------------|------------------------|----------------------|--------------------------|-----------------|----------------|-------------------|----------------------------|--------|
| Well Number | Production Mo./YTD | Ref. Point Elevation | Depth to Water 7/31/2013 | Water Level-MSL | Depth of Bowls | Bowl Settings-MSL | Feet of Water Above Intake | |
| 1 | 175.72 AF 352.60 AF | 34 | N/A | N/A | 270 | -236 | N/A | |
| | | | | | | | Pumping | |
| 2 | 0.00 AF 0.00 AF | 37 | 112.4 | -75.4 | 270 | -233 | 157.6 | |
| | | | | | | | Static | |
| 3 | 0.00 AF 0.00 AF | 55 | 116.7 | -61.7 | 215 | -160 | 98.3 | |
| | | | | | | | Static | |
| 4 | 229.90 AF 469.70 AF | 38 | 164.7 | -126.7 | 216 | -178 | 51.3 | |
| | | | | | | | Pumping | |
| 5 | 160.11 AF 188.83 AF | 48 | 287 | -239 0 | 290 | -242 | 3 | |
| | | | | | | | Pumping | |
| 6 | 275.73 AF 377.11 AF | 43 | 152.2 | -109.2 | 250 | -207 | 97.8 | |
| | | | | | | | Pumping | |
| 7 | 62.41 AF 62.41 AF | 40 | 249.2 | -209.2 | 290 | -250 | 40.8 | |
| | | | | | | | Pumping | |
| C-8 | 416.48 AF 810.54 AF | 37 | 152.7 | -115.7 | 305 | -268 | 152.3 | |
| | | | | | | | Pumping | |
| C-9 | 325.73 AF 631.69 AF | 23 | 154 | -131 | 305 | -282 | 151 | |
| | | | | | | | Pumping | |
| 10 | 330.44 AF 657.87 AF | 47 | 186.1 | -139.1 | 250 | -203 | 63.9 | |
| | | | | | | | Pumping | |
| 11 | 184.71 AF 432.19 AF | 40 | 199.6 | -159.6 | 300 | -260 | 100.4 | |
| | | | | | | | Pumping | |
| 12 | 227.25 AF 438.02 AF | 51 | 191.2 | -140.2 | 300 | -249 | 108.8 | |
| | | | | | | | Pumping | |
| 13 | 58.70 AF 147.81 AF | 40 | 209.4 | -169.4 | 300 | -260 | 90.6 | |
| | | | | | | | Pumping | |
| 14 | 244.49 AF 417.24 AF | 47 | 208.8 | -161.8 | 311 | -264 | 102.2 | |
| | | | | | | | Pumping | |
| 15 | 382.88 AF 709.08 AF | 44 | 195.2 | -151.2 | 300 | -256 | 104.8 | |
| | | | | | | | Pumping | |
| 16 | 44.09 AF 135.84 AF | 47 | 144.5 | -97.5 | 280 | -233 | 135.5 | |
| | | | | | | | Static | |
| 17 | 291.62 AF 568.73 AF | 52 | 203.1 | -151.1 | 250 | -198 | 46.9 | |
| | | | | | | | Pumping | |
| 18 | 215.07 AF 417.09 AF | 45 | 238.1 | -193.1 | 300 | -255 | 61.9 | |
| | | | | | | | Pumping | |
| Clear production: | 282.28 AF | for the month | | | | | | |
| FYTD: | 5374.68 AF | | | | | | | |
| DATS production: | 678.87 AF | for the month | | | | | | |
| FYTD: | 1361.26 AF | | | | | | | |

Exhibit "c"

Reservoir DATA FY 13-14



Sand Canyon Reservoir Storage is maintained at a low level.



Rattlesnake Reservoir Storage is maintained at a low level.

September 23, 2013
Prepared by: R. Jacobson/T. Fournier/J. Davis
Submitted by: Cheryl Clary
Approved by: Paul Cook

CONSENT CALENDAR

AUGUST 2013 TREASURY REPORTS

SUMMARY:

The following is submitted for the Board's information and approval:

- A. The Investment Summary Report for August 2013. This Investment Summary Report is in conformity with the 2013 Investment Policy and provides sufficient liquidity to meet estimated expenditures during the next six months, as outlined in Exhibit "A".
- B. The Monthly Interest Rate Swap Summary as of August 31, 2013, as outlined in Exhibit "B".
- C. The Summary of Payroll ACH payments in the total amount of \$1,457,706, as outlined in Exhibit "C".
- D. The August 31, 2013 Disbursement Summary of warrants 341266 through 342225, wire transfers, Workers' Compensation distributions, payroll withholding distributions, and voided checks in the total amount of \$13,773,716, as outlined in Exhibit "D".
- E. The Disclosure Report of Reimbursements to Board Members and Staff for August 2013, detailing payments or reimbursements for individual charges of \$100.00 or more per transaction, as outlined in Exhibit "E".

FISCAL IMPACTS:

As of August 31, 2013, the book value of the investment portfolio was \$311,818,708, with a 0.38% rate of return and a market value of \$311,362,106. Based on the District's June 30, 2013 quarterly real estate investment rate of return of 10.91%, the District's weighted average return for the fixed income and real estate investments was 2.37%.

As of August 31, 2013, the total notional amount of the interest rate swap portfolio was \$130 million of fixed payer swaps. Cash accrual in August from all swaps was negative \$602,729.

Payroll ACH payments totaled \$1,457,706 and wire transfers, all other ACH payments, and checks issued for debt service, accounts payable, payroll, and water purchases for August totaled \$13,773,716.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3 Section 15378.

COMMITTEE STATUS:

This item was not submitted to a Committee; however, the investment and interest rate swap reports are submitted to the Finance and Personnel Committee on a monthly basis.

RECOMMENDATION:

THAT THE BOARD RECEIVE AND FILE THE TREASURER'S INVESTMENT SUMMARY REPORT, THE MONTHLY INTEREST RATE SWAP SUMMARY FOR AUGUST 2013, AND DISCLOSURE REPORT OF REIMBURSEMENTS TO BOARD MEMBERS AND STAFF; APPROVE THE AUGUST 2013 SUMMARY OF PAYROLL ACH PAYMENTS IN THE TOTAL AMOUNT OF \$1,457,706 AND APPROVE THE AUGUST 2013 ACCOUNTS PAYABLE DISBURSEMENT SUMMARY OF WARRANTS 341266 THROUGH 342225, WORKERS' COMPENSATION DISTRIBUTIONS, WIRE TRANSFERS, PAYROLL WITHHOLDING DISTRIBUTIONS AND VOIDED CHECKS IN THE TOTAL AMOUNT OF \$13,773,716.

LIST OF EXHIBITS:

Exhibit "A" - Investment Summary Report

Exhibit "B" - Monthly Interest Rate Swap Summary

Exhibit "C" - Monthly Payroll ACH Summary

Exhibit "D" - Monthly Summary of District Disbursements

Exhibit "E" – Disclosure of Reimbursements to Board Members and Staff

08/30/13

| SET/PLMT | Call Schedule | Initial Call | Maturity Date | Rating | INVESTMENT TYPE | INSTITUTION / ISSUER | PAR Amount | COUPON | YIELD | YIPC | ORIGINAL COST | CARRY VALUE | MARKET VALUE (1) | UNREALIZED GAIN/(LOSS)(2) | |
|--|---------------|--------------|---------------|-------------|--------------------|-----------------------------|---------------|--------|--------|--------|------------------|------------------|------------------|---------------------------|--|
| 07/15/13 | | | 09/30/13 | | LAIF | State of California Tsy. | \$50,000,000 | | 0.260% | | \$50,000,000.00 | \$50,000,000.00 | 50,013,660.35 | 13,660.35 | |
| 08/30/13 | | | 09/30/13 | | LAIF-JPA | State of California Tsy. | 29,500,000 | | 0.260% | | \$29,500,000.00 | \$29,500,000.00 | 29,508,059.61 | 8,059.61 | |
| 07/15/13 | | | 08/16/13 | | LAIF BABS | State of California Tsy | 29,082,991 | | 0.260% | | \$29,082,990.54 | \$29,082,990.54 | 29,090,936.22 | 7,945.68 | |
| 12/20/12 | N/A | N/A | 12/19/13 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 0.190% | 0.183% | | 10,000,700.00 | 10,000,209.62 | 10,003,200.00 | 2,990.38 | |
| 04/24/12 | N/A | N/A | 12/23/13 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.625% | 0.304% | | 5,026,600.00 | 5,004,943.75 | 5,007,850.00 | 2,906.25 | |
| 07/11/12 | N/A | N/A | 02/25/14 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 1.375% | 0.301% | | 5,086,800.00 | 5,024,821.23 | 5,030,500.00 | 5,678.77 | |
| 05/23/12 | N/A | N/A | 05/23/14 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.350% | 0.394% | | 4,995,600.00 | 4,998,408.77 | 5,006,600.00 | 8,191.23 | |
| 04/18/12 | N/A | N/A | 05/28/14 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 1.375% | 0.354% | | 5,107,250.00 | 5,037,467.86 | 5,044,700.00 | 7,232.14 | |
| 01/30/12 | One Time | 01/30/14 | 01/30/15 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.750% | 0.500% | 0.500% | 5,024,850.00 | 5,011,699.45 | 5,009,100.00 | (2,599.45) | |
| 01/30/12 | One Time | 01/30/14 | 01/30/15 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 10,000,000 | 0.750% | 0.453% | 0.453% | 10,059,000.00 | 10,027,777.37 | 10,018,200.00 | (9,577.37) | |
| 02/09/12 | Continuous | 05/09/12 | 02/09/15 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.460% | 0.480% | 0.700% | 4,997,000.00 | 4,998,560.22 | 5,000,050.00 | 1,489.78 | |
| 04/29/13 | Quarterly | 10/29/13 | 04/29/15 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.320% | 0.310% | 0.280% | 5,001,000.00 | 5,000,828.77 | 4,993,450.00 | (7,378.77) | |
| 12/18/12 | Continuous | 03/18/13 | 06/18/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 0.320% | 0.360% | 0.720% | 9,990,000.00 | 9,992,817.98 | 9,984,375.00 | (8,442.98) | |
| 12/27/12 | Continuous | 03/26/13 | 06/26/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 0.375% | 0.375% | 0.375% | 10,000,000.00 | 10,000,000.00 | 9,992,400.00 | (7,600.00) | |
| 04/30/13 | Continuous | 07/15/13 | 07/15/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.290% | 0.290% | 0.290% | 5,000,000.00 | 5,000,000.00 | 4,987,700.00 | (12,300.00) | |
| 08/28/12 | Continuous | 08/27/13 | 08/27/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 0.480% | 0.480% | 0.480% | 10,000,000.00 | 10,000,000.00 | 10,000,100.00 | 100.00 | |
| 09/17/12 | Continuous | 09/17/13 | 09/17/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.480% | 0.482% | 0.482% | 4,999,750.00 | 4,999,829.68 | 4,996,200.00 | (3,629.68) | |
| 09/17/12 | Continuous | 09/17/13 | 09/17/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.480% | 0.455% | 0.472% | 5,001,250.00 | 5,000,851.60 | 4,996,200.00 | (4,651.60) | |
| 09/25/12 | Quarterly | 09/25/13 | 09/25/15 | Aaa/AA+/AAA | FHLMC - Note | Fed Home Loan Mortgage Bank | 5,000,000 | 0.500% | 0.470% | 0.490% | 5,001,500.00 | 5,001,032.88 | 4,993,600.00 | (7,432.88) | |
| 09/28/12 | Continuous | 12/28/12 | 09/28/15 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.450% | 0.470% | 0.470% | 4,997,000.00 | 4,997,926.03 | 4,996,000.00 | (1,926.03) | |
| 10/17/12 | One Time 2yr | 10/09/14 | 10/09/15 | Aaa/AA+/NR | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.480% | 0.460% | 0.466% | 5,002,000.00 | 5,001,413.06 | 4,994,800.00 | (6,613.06) | |
| 12/18/12 | Continuous | 03/18/13 | 12/18/15 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 10,000,000 | 0.400% | 0.425% | 0.701% | 9,992,500.00 | 9,994,260.27 | 9,954,800.00 | (39,460.27) | |
| 12/21/12 | Continuous | 03/21/13 | 12/21/15 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.410% | 0.418% | 0.510% | 4,998,750.00 | 4,999,039.95 | 4,980,100.00 | (18,939.95) | |
| 01/15/13 | N/A | 07/15/13 | 01/15/16 | NA/AA+/AAA | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.375% | 0.390% | | 4,997,750.00 | 4,998,064.38 | 4,972,350.00 | (25,714.38) | |
| 01/17/13 | Quarterly | 07/15/13 | 01/15/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.500% | 0.500% | 0.500% | 5,000,000.00 | 5,000,000.00 | 4,980,468.50 | (19,531.50) | |
| 03/21/13 | Quarterly | 09/04/13 | 03/04/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.600% | 0.566% | 0.379% | 5,005,000.00 | 5,004,299.74 | 4,979,200.00 | (25,099.74) | |
| 03/14/13 | Continuous | 09/07/13 | 03/07/16 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 10,000,000 | 0.470% | 0.490% | | 9,994,000.00 | 9,994,942.15 | 9,950,000.00 | (44,942.15) | |
| 05/22/13 | Quarterly | 08/28/13 | 03/28/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.650% | 0.256% | 0.613% | 5,005,250.00 | 5,004,735.59 | 4,981,500.00 | (23,235.59) | |
| 04/12/13 | Continuous | 07/12/13 | 04/12/16 | Aaa/AA+/AAA | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.410% | 0.447% | 0.851% | 4,994,500.00 | 4,995,212.59 | 4,964,200.00 | (31,012.59) | |
| 04/30/13 | Quarterly | 10/25/13 | 04/25/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.580% | 0.536% | 0.310% | 5,006,550.00 | 5,005,805.55 | 4,966,000.00 | (39,805.55) | |
| 05/24/13 | Quarterly | 10/25/13 | 04/25/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 4,975,000 | 0.580% | 0.568% | 0.500% | 4,976,641.75 | 4,976,027.88 | 4,941,170.00 | (34,875.88) | |
| 05/20/13 | Quarterly | 10/29/13 | 04/29/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.500% | 0.500% | 0.500% | 5,000,000.00 | 5,000,000.00 | 4,959,900.00 | (40,100.00) | |
| 05/31/13 | Quarterly | 11/27/13 | 05/27/16 | Aaa/AA+/AAA | FNMA - Note | Fed Natl Mortgage Assoc | 5,000,000 | 0.520% | 0.585% | 0.935% | 4,990,000.00 | 4,990,851.65 | 4,964,062.50 | (26,789.15) | |
| 06/17/13 | Monthly | 07/13/13 | 06/17/16 | Aaa/AA+/NR | FHLB - Note | Fed Home Loan Bank | 5,000,000 | 0.750% | 0.750% | 0.750% | 5,000,000.00 | 5,000,000.00 | 4,975,750.00 | (24,250.00) | |
| 03/14/13 | Continuous | 12/26/12 | 09/26/16 | Aaa/AA+/NR | FFCB - Note | Fed Farm Credit Bank | 5,000,000 | 0.680% | 0.683% | | 4,999,500.00 | 4,999,566.18 | 4,950,600.00 | (48,966.18) | |
| SUB-TOTAL | | | | | | | \$303,557,991 | | | | \$303,833,732.29 | \$303,644,384.74 | \$303,187,782.17 | (\$456,602.56) | |
| RESTRICTED CASH (Swap Collateral Deposits) | | | | | | | | | | | | | | | |
| | | | | | Collateral Deposit | Citi-Group | \$7,844,323 | 0.150% | | | \$7,844,323.40 | \$7,844,323.40 | 7,844,323.40 | | |
| | | | | | Collateral Deposit | Merrill Lynch | \$330,000 | 0.150% | | | \$330,000.00 | \$330,000.00 | 330,000.00 | | |
| SUB-TOTAL | | | | | | | \$8,174,323 | | | | \$8,174,323.40 | \$8,174,323.40 | \$8,174,323.40 | | |
| TOTAL INVESTMENTS | | | | | | | \$311,732,314 | | | | \$312,008,055.69 | \$311,818,708.14 | \$311,362,105.57 | | |
| | | | | August | Petty Cash | Bank of America | | | | | 3,200.00 | | | | |
| | | | | | Bank Bal | Bank of America | | | | | 2,891,885.08 | | | | |
| | | | | | | | | | | | \$314,903,140.77 | | | | |

(1) LAIF market value is as of the most recent quarter-end as reported by LAIF.
Security market values are determined using Bank of New York ("Trading Prices"), Bloomberg and/or broker dealer pricing.

(2) Gain (loss) calculated against carry value using the trading value provided by Bank of New York/or Brokers

(3) Real estate rate of return is based on most recent quarter end return

Outstanding Variable Rate Debt \$358,200,000
Net Outstanding Variable Rate Debt (Less \$130 million fixed-payer swaps) \$228,200,000
Investment Balance \$314,903,141
Investment to Variable Rate Debt Ratio: 138%
Portfolio - Average Number of Days To Maturity 456

| | Investment Portfolio | Real Estate Portfolio (3) | Weighted Avg. Return |
|--------|----------------------|---------------------------|----------------------|
| August | 0.38% | 10.91% | 2.37% |
| July | 0.37% | 10.91% | 2.32% |
| Change | 0.01% | | |

This Investment Summary Report is in conformity with the 2013 Investment Policy and provides sufficient liquidity to meet the next six months estimated expenditures

IRVINE RANCH WATER DISTRICT
SUMMARY OF MATURITIES

08/30/13

| DATE | TOTAL | % | LAIF | AGENCIES | COLLATERAL DEPOSIT | CAL REV NOTES |
|----------------------------|----------------------|----------------|----------------------|----------------------|--------------------|---------------|
| 8/13 | \$116,757,314 | 37.45% | \$108,582,991 | | \$8,174,323 | |
| 09/13 | | | | | | |
| 10/13 | | | | | | |
| 11/13 | | | | | | |
| 12/13 | \$15,000,000 | 4.81% | | 15,000,000 | | |
| 1/14 | | | | | | |
| 2/14 | \$5,000,000 | 1.60% | | 5,000,000 | | |
| 3/14 | | | | | | |
| 4/14 | | | | | | |
| 5/14 | \$10,000,000 | 3.21% | | 10,000,000 | | |
| 6/14 | | | | | | |
| 07/14 | | | | | | |
| SUB-TOTAL | \$146,757,314 | 47.08% | \$108,582,991 | \$30,000,000 | \$8,174,323 | |
| 13 Months - 3 YEARS | | | | | | |
| 8/1/2014 - 9/30/2014 | - | | | | | |
| 10/1/2014 - 12/31/2014 | - | | | | | |
| 1/1/2015 - 3/31/2015 | 20,000,000 | 6.42% | | 20,000,000 | | |
| 4/1/2015 - 6/30/2015 | 25,000,000 | 8.02% | | 25,000,000 | | |
| 07/1/2015 - 9/30/2015 | \$35,000,000 | 11.23% | | 35,000,000 | | |
| 10/1/2015 - 12/30/15 | \$20,000,000 | 6.42% | | 20,000,000 | | |
| 01/01/16 - 03/31/2016 | \$30,000,000 | 9.62% | | 30,000,000 | | |
| 04/01/16 - 06/30/2016 | \$29,975,000 | 9.62% | | 29,975,000 | | |
| 07/01/16 - 9/30/2016 | \$5,000,000 | 1.60% | | 5,000,000 | | |
| | | | | | | |
| TOTALS | \$311,732,314 | 100.00% | \$108,582,991 | \$194,975,000 | \$8,174,323 | |

% OF PORTFOLIO

A-2

34.83%

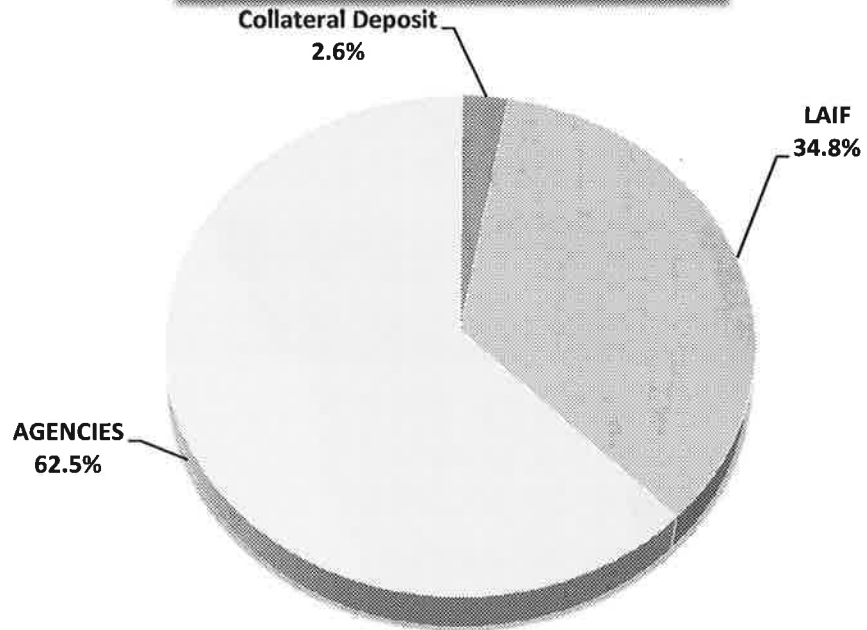
62.55%

2.62%

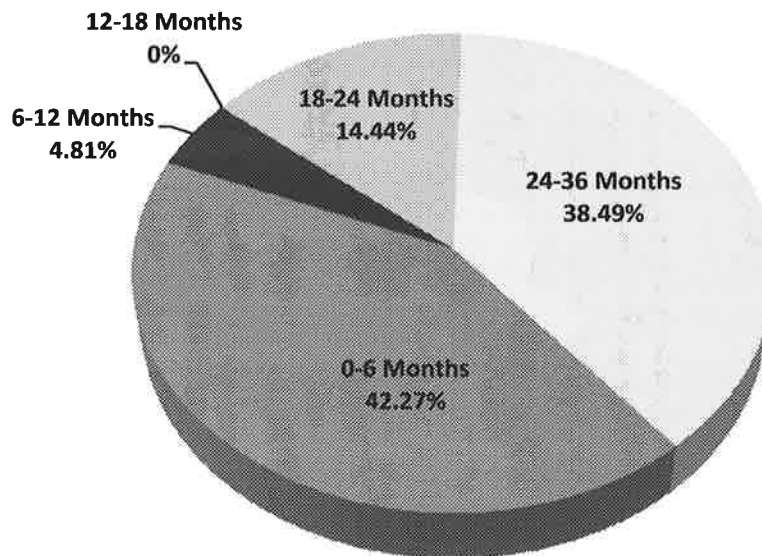
August 2013 INVESTMENT PORTFOLIO

August 30, 2013

Portfolio by Investment Type



Portfolio by Maturities



Irvine Ranch Water District
 Summary of Real Estate
 6/30/2013

| | <u>ACQUISITION DATE</u> | <u>PROPERTY TYPE</u> | <u>OWNERSHIP INTEREST</u> | <u>ORIGINAL COST</u> | <u>RATE OF RETURN QUARTER ENDED Jun-13</u> |
|---------------------------------|-----------------------------|--------------------------|-------------------------------|--------------------------|--|
| Sycamore Canyon | Dec-92 | Apartments | Fee Simple | \$ 43,550,810 | 14.15% |
| Wood Canyon Villas | Jun-91 | Apartments | Limited Partner | \$ 6,000,000 | 8.42% |
| ITC (230 Commerce) | Jul-03 | Office Building | Fee Simple | \$ 5,739,845 | 7.03% |
| Waterworks Business Pk. | Nov-08 | Research & Dev. | Fee Simple | \$ 8,630,577 | 4.36% |
| Sand Canyon Professional Center | Jul-12 | Medical Office | Fee Simple | \$ 8,648,594 | 5.38% |
| | | | | <u>\$ 72,569,826</u> | <u>10.91%</u> |

IRVINE RANCH WATER DISTRICT
INVESTMENT SUMMARY REPORT

Joint Powers Agency - Investment Contracts

8/30/2013

| Settlement Date | JPA Issue | Investment Contract | Original Cost | Current Par | Market Value 08/30/13 |
|--------------------|----------------|---|-----------------------|-----------------------|--------------------------|
| 10/25/1994 | JPA - Issue #1 | AIG Matched Funding Corp. 7.705% Due 2-15-14 | \$ 407,878,616 | \$ 238,687,800 | \$ 238,687,800 |
| 10/25/1994 | JPA - Issue #2 | Federal National Mortgage Assoc. 8.18% Due 2-15-14 | \$ 518,644,189 | \$ 365,300,641 | \$ 382,206,755 |
| | | | <u>\$ 926,522,805</u> | <u>\$ 603,988,441</u> | <u>\$ 620,894,555</u> |

**IRVINE RANCH WATER DISTRICT
INTEREST RATE SWAP MONTHLY SUMMARY REPORT - DETAIL
August 31, 2013**

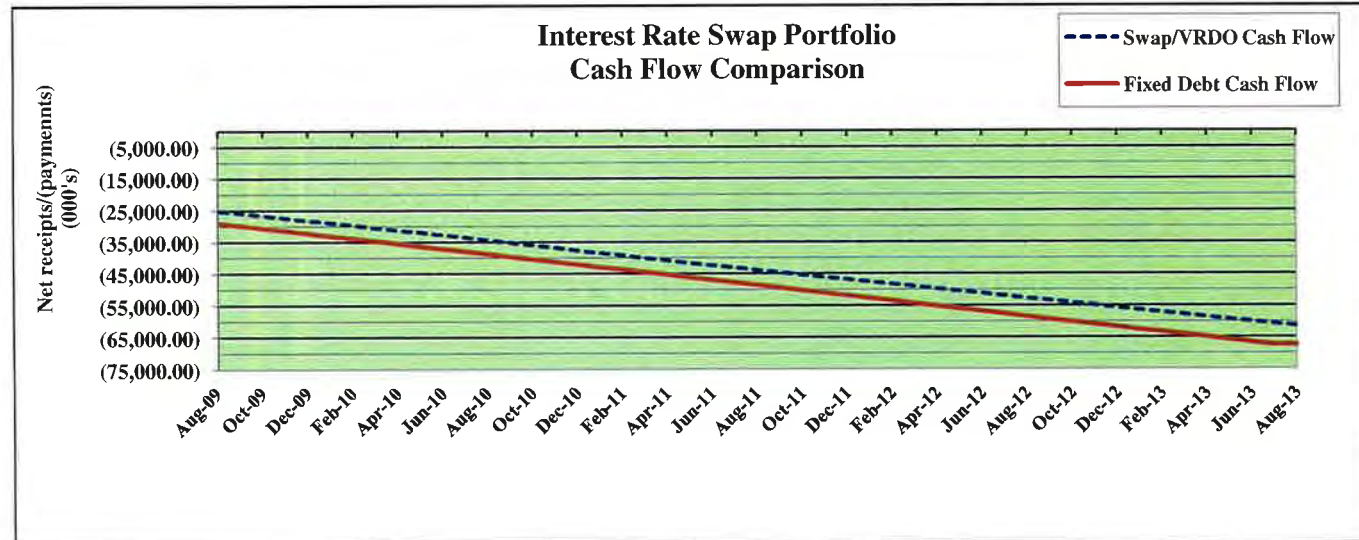
Exhibit "B"

| | | | |
|--------------------|------------------|--------------------|------------------|
| LIBOR Avg % | Prior Mo. | Current Mo. | 12-Mo Avg |
| | 0.19% | 0.18% | 0.20% |

| Current Fiscal Year Active Swaps | | | | | | | | Cash Flow | | | | (Since 6/06) | Mark to Market | |
|--|---------------|-------------------|---------------|----------------|----------------|------------|------------|--------------|---------------|----------------|----------------------|------------------------|---------------------|--|
| Effective Date | Maturity Date | Years to Maturity | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference | |
| Fixed Payer Swaps - By Effective Date | | | | | | | | | | | | | | |
| 6/4/2006 | 6/4/2019 | 5.8 | ML | \$ 20,000,000 | FXP | LIBOR | 6.200% | \$ (110,089) | \$ (96,774) | \$ (1,400,034) | \$ (6,442,881) | \$ 15,274,417 | \$ (4,725,583) | |
| 6/4/2006 | 6/4/2019 | 5.8 | CG | \$ 20,000,000 | FXP | LIBOR | 6.200% | \$ (110,089) | \$ (96,774) | (1,400,034) | (6,442,881) | 15,271,934 | (4,728,066) | |
| 6/17/2006 | 6/17/2019 | 5.8 | CG | \$ 30,000,000 | FXP | LIBOR | 6.140% | \$ (163,563) | \$ (143,677) | (2,079,161) | (9,546,448) | 22,985,986 | (7,014,014) | |
| 3/10/2007 | 3/10/2029 | 15.5 | ML | \$ 30,000,000 | FXP | LIBOR | 5.687% | \$ (151,090) | \$ (132,752) | (1,920,127) | (8,473,545) | 21,186,261 | (8,813,739) | |
| 3/10/2007 | 3/10/2029 | 15.5 | CG | \$ 30,000,000 | FXP | LIBOR | 5.687% | (151,090) | (132,752) | (1,920,127) | (8,473,545) | 21,169,993 | (8,830,007) | |
| Totals/Weighted Avgs | | | | 10.3 | \$ 130,000,000 | | 5.949% | \$ (685,921) | \$ (602,729) | \$ (8,719,483) | \$ (39,379,301) | \$ 95,888,591 | \$ (34,111,409) | |
| Total Current Year Active Swaps | | | | \$ 130,000,000 | | | | \$ (685,921) | \$ (602,729) | \$ (8,719,483) | \$ (39,379,301) | \$ 95,888,591 | \$ (34,111,409) | |

| Current Fiscal Year Terminated Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|--|---------------|--|---------------|--------------|------|------------|------------|-------------|---------------|------------|----------------------|------------------------|---------------------|
| Effective Date | Maturity Date | | Counter Party | Notional Amt | Type | Base Index | Fixed Rate | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference |
| Total Current Year Terminated Swaps | | | | | | | | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |

| Current Fiscal Year - Total Swaps | | | | | | | | Cash Flow | | | | Mark to Market | |
|---|--|--|--|--|--|--|--|--------------|---------------|----------------|----------------------|------------------------|---------------------|
| | | | | | | | | Prior Month | Current Month | Fiscal YTD | Cumulative Cash Flow | Current Mark to Market | Notional Difference |
| Total Current Year Active & Terminated Swaps | | | | | | | | \$ (685,921) | \$ (602,729) | \$ (8,719,483) | \$ (39,379,301) | \$ 95,888,591 | \$ (34,111,409) |



| Cash Flow Comparison | |
|---|--------------------------|
| Synthetic Fixed vs. Fixed Rate Debt | |
| | <u>Cash Flow to Date</u> |
| Synthetic Fixed = | \$61,411,534 |
| Fixed Rate = | \$67,460,837 |
| Assumptions: | |
| - Fixed rate debt issued at 5.10% in Jun-06, and 4.93% in Mar-07 (estimated TE rates - Bloomberg) | |
| - 'Synthetic' includes swap cash flow + interest + fees to date | |

Exhibit "C"

MONTHLY SUMMARY OF PAYROLL ACH PAYMENTS

August
2013

| DATE | AMOUNT | VENDOR | PURPOSE |
|-----------|------------------------------|-----------------|--------------------------|
| 8/9/2013 | 741,067.01 | BANK OF AMERICA | ACH Payments for Payroll |
| 8/23/2013 | 716,639.85 | BANK OF AMERICA | ACH Payments for Payroll |
| | <u><u>\$1,457,706.86</u></u> | | |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 1
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341266 | | 01-AUG-13 | A PLUS STORAGE | | 81.60 | 05-AUG-13 | 81.60 | Reconciled |
| 341267 | | 01-AUG-13 | ADT SECURITY SERVICES INC | | 359.84 | 06-AUG-13 | 359.84 | Reconciled |
| 341268 | | 01-AUG-13 | AIRGAS-WEST, INC. | | 93.66 | 05-AUG-13 | 93.66 | Reconciled |
| 341269 | | 01-AUG-13 | ALLIANCE APPRAISAL, LLC | | 1,200.00 | 07-AUG-13 | 1,200.00 | Reconciled |
| 341270 | | 01-AUG-13 | AQUA-METRIC SALES COMPANY | | 43,059.60 | 12-AUG-13 | 43,059.60 | Reconciled |
| 341271 | | 01-AUG-13 | ARB INCORPORATED | | 581.85 | 02-AUG-13 | 581.85 | Reconciled |
| 341272 | | 01-AUG-13 | ARIZONA PIPELINE COMPANY | | 837.63 | 12-AUG-13 | 837.63 | Reconciled |
| 341273 | | 01-AUG-13 | ARMORCAST PRODUCTS COMPANY | | 12,224.13 | 07-AUG-13 | 12,224.13 | Reconciled |
| 341274 | | 01-AUG-13 | ASSOCIATION OF CALIFORNIA WATER AGENCIES/JPIA | | 33,043.48 | 08-AUG-13 | 33,043.48 | Reconciled |
| 341275 | | 01-AUG-13 | AT&T | | 234.51 | 07-AUG-13 | 234.51 | Reconciled |
| 341276 | | 01-AUG-13 | AT&T | | 80.45 | 07-AUG-13 | 80.45 | Reconciled |
| 341277 | | 01-AUG-13 | BANK OF AMERICA MERRILL LYNCH | | 1,141.10 | 07-AUG-13 | 1,141.10 | Reconciled |
| 341278 | | 01-AUG-13 | BARRETT, ASHLEE | | 32.29 | | | Negotiable |
| 341279 | | 01-AUG-13 | BIGWIG MONSTER, LLC | | 6,750.00 | 06-AUG-13 | 6,750.00 | Reconciled |
| 341280 | | 01-AUG-13 | BILL'S SWEEPING SERVICE INC | | 1,265.00 | 05-AUG-13 | 1,265.00 | Reconciled |
| 341281 | | 01-AUG-13 | BORCHARD SURVEYING & MAPPING, INC. | | 215.00 | | | Negotiable |
| 341282 | | 01-AUG-13 | BOTTOM LINE UTILITY SOLUTIONS, INC. | | 38,890.61 | 06-AUG-13 | 38,890.61 | Reconciled |
| 341283 | | 01-AUG-13 | BOWIE, ARNESON, WILES & GIANNONE | | 348.50 | 13-AUG-13 | 348.50 | Reconciled |
| 341284 | | 01-AUG-13 | BRYANT, K&V | | 38.52 | | | Negotiable |
| 341285 | | 01-AUG-13 | C WELLS PIPELINE MATERIALS INC | | 5,188.32 | 15-AUG-13 | 5,188.32 | Reconciled |
| 341286 | | 01-AUG-13 | CALIFORNIA BARRICADE INC | | 3,800.00 | 06-AUG-13 | 3,800.00 | Reconciled |
| 341287 | | 01-AUG-13 | CALIFORNIA MUNICIPAL UTILITIES | | 9,491.00 | 08-AUG-13 | 9,491.00 | Reconciled |
| 341288 | | 01-AUG-13 | CAMERON-COLE, LLC | | 938.47 | 05-AUG-13 | 938.47 | Reconciled |
| 341289 | | 01-AUG-13 | CANON SOLUTIONS AMERICA, INC. | | 1,178.32 | 05-AUG-13 | 1,178.32 | Reconciled |
| 341290 | | 01-AUG-13 | CARDIAC SCIENCE CORPORATION | | 5,085.20 | 08-AUG-13 | 5,085.20 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 2
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341291 | | 01-AUG-13 | CITY CIRCUIT BREAKERS | | 178.20 | 06-AUG-13 | 178.20 | Reconciled |
| 341292 | | 01-AUG-13 | CLA-VAL COMPANY | | 1,064.76 | 02-AUG-13 | 1,064.76 | Reconciled |
| 341293 | | 01-AUG-13 | COAST PLUMBING HEATING AND AIR, INC | | 59.95 | 02-AUG-13 | 59.95 | Reconciled |
| 341294 | | 01-AUG-13 | COHEN, JOHNATHAN | | 39.40 | | | Negotiable |
| 341295 | | 01-AUG-13 | COHEN, MICHELLE | | 41.65 | | | Negotiable |
| 341296 | | 01-AUG-13 | COMMERCE ENERGY INC | | 465.98 | 05-AUG-13 | 465.98 | Reconciled |
| 341297 | | 01-AUG-13 | COMMERCIAL CLEANING SYSTEMS | | 140.00 | 05-AUG-13 | 140.00 | Reconciled |
| 341298 | | 01-AUG-13 | COMMERCIAL DOOR OF ORANGE COUNTY, INC. | | 406.65 | 07-AUG-13 | 406.65 | Reconciled |
| 341299 | | 01-AUG-13 | CONDITION MONITORING SERVICES INC | | 810.00 | 05-AUG-13 | 810.00 | Reconciled |
| 341300 | | 01-AUG-13 | CONYBEARE INC | | 15,494.76 | 06-AUG-13 | 15,494.76 | Reconciled |
| 341301 | | 01-AUG-13 | CRUZ, ANGIE | | 109.19 | 05-AUG-13 | 109.19 | Reconciled |
| 341302 | | 01-AUG-13 | CUMMINS CAL PACIFIC LLC | | 1,668.98 | 05-AUG-13 | 1,668.98 | Reconciled |
| 341303 | | 01-AUG-13 | DALEY & HEFT LLP | | 8,298.68 | 14-AUG-13 | 8,298.68 | Reconciled |
| 341304 | | 01-AUG-13 | DEE JASPAR & ASSOCIATES, INC. | | 1,493.32 | 09-AUG-13 | 1,493.32 | Reconciled |
| 341305 | | 01-AUG-13 | DELTA SYSTEMS ENGINEERING INC | | 42,629.12 | 07-AUG-13 | 42,629.12 | Reconciled |
| 341306 | | 01-AUG-13 | DISCOVERY SCIENCE | | 31,752.00 | 07-AUG-13 | 31,752.00 | Reconciled |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|---|------|----------------|--------------|----------------|------------|
| 341307 | 01-AUG-13 | | CENTER | | 24.77 | 05-AUG-13 | 24.77 | Reconciled |
| 341308 | 01-AUG-13 | | DOYLE, CANDICE DUDLEY RIDGE WATER DISTRICT | | 8,581.94 | | | Negotiable |
| 341309 | 01-AUG-13 | | DUMONT, TONY | | 32.49 | | | Negotiable |
| 341310 | 01-AUG-13 | | DUNTHY, MICHELLE | | 14.23 | 08-AUG-13 | 14.23 | Reconciled |
| 341311 | 01-AUG-13 | | EAST ORANGE COUNTY WATER DISTRICT | | 3,241.75 | 05-AUG-13 | 3,241.75 | Reconciled |
| 341312 | 01-AUG-13 | | EDGEWAVE, INC. | | 5,000.00 | 09-AUG-13 | 5,000.00 | Reconciled |
| 341313 | 01-AUG-13 | | ELECTRITEL SERVICES, INC. | | 843.64 | 02-AUG-13 | 843.64 | Reconciled |
| 341314 | 01-AUG-13 | | EVERGREEN OIL INC | | 231.50 | 06-AUG-13 | 231.50 | Reconciled |
| 341315 | 01-AUG-13 | | FARRELL & ASSOCIATES | | 1,565.98 | 05-AUG-13 | 1,565.98 | Reconciled |
| 341316 | 01-AUG-13 | | FEDEX NATIONAL LTL, INC | | 141.89 | 07-AUG-13 | 141.89 | Reconciled |
| 341317 | 01-AUG-13 | | FERGUSON ENTERPRISES, INC. | | 8,978.70 | 07-AUG-13 | 8,978.70 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 3
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341318 | 01-AUG-13 | | FIDELITY SECURITY LIFE INSURANCE COMPANY | | 5,991.40 | 08-AUG-13 | 5,991.40 | Reconciled |
| 341319 | 01-AUG-13 | | FIRST CHOICE SERVICES | | 330.67 | 06-AUG-13 | 330.67 | Reconciled |
| 341320 | 01-AUG-13 | | FISHER SCIENTIFIC COMPANY LLC | | 1,481.40 | 05-AUG-13 | 1,481.40 | Reconciled |
| 341321 | 01-AUG-13 | | FLEET SOLUTIONS LLC | | 100.00 | 06-AUG-13 | 100.00 | Reconciled |
| 341322 | 01-AUG-13 | | FLUID CONSERVATION SYSTEMS INC | | 199.96 | 13-AUG-13 | 199.96 | Reconciled |
| 341323 | 01-AUG-13 | | FRANK LA PLACA EXTERMINATING INC | | 175.00 | 02-AUG-13 | 175.00 | Reconciled |
| 341324 | 01-AUG-13 | | GALLADE CHEMICAL INC | | 313.20 | 06-AUG-13 | 313.20 | Reconciled |
| 341325 | 01-AUG-13 | | GANAHL LUMBER CO. | | 156.51 | 06-AUG-13 | 156.51 | Reconciled |
| 341326 | 01-AUG-13 | | GARDENSOF | | 3,000.00 | 05-AUG-13 | 3,000.00 | Reconciled |
| 341327 | 01-AUG-13 | | GARZA INDUSTRIES, INC | | 1,381.97 | 02-AUG-13 | 1,381.97 | Reconciled |
| 341328 | 01-AUG-13 | | GE ANALYTICAL INSTRUMENTS INC | | 9,240.00 | 08-AUG-13 | 9,240.00 | Reconciled |
| 341329 | 01-AUG-13 | | GILL, KRISTEN | | 26.95 | 06-AUG-13 | 26.95 | Reconciled |
| 341330 | 01-AUG-13 | | GLOBALSTAR INC | | 168.77 | 05-AUG-13 | 168.77 | Reconciled |
| 341331 | 01-AUG-13 | | GRAINGER | | 835.30 | 05-AUG-13 | 835.30 | Reconciled |
| 341332 | 01-AUG-13 | | GRANITO, LADONNA | | 26.50 | 02-AUG-13 | 26.50 | Reconciled |
| 341333 | 01-AUG-13 | | GRAPHIC CONTROLS LLC | | 594.78 | 06-AUG-13 | 594.78 | Reconciled |
| 341334 | 01-AUG-13 | | HARRINGTON INDUSTRIAL PLASTICS LLC | | 3,296.02 | 02-AUG-13 | 3,296.02 | Reconciled |
| 341335 | 01-AUG-13 | | HDR ENGINEERING INC | | 111,858.34 | 09-AUG-13 | 111,858.34 | Reconciled |
| 341336 | 01-AUG-13 | | HILL BROTHERS CHEMICAL COMPANY | | 19,487.70 | 07-AUG-13 | 19,487.70 | Reconciled |
| 341337 | 01-AUG-13 | | HOME DEPOT USA INC | | 883.18 | 06-AUG-13 | 883.18 | Reconciled |
| 341338 | 01-AUG-13 | | HUNSAKER & ASSOCIATES IRVINE | | 5,836.00 | 07-AUG-13 | 5,836.00 | Reconciled |
| 341339 | 01-AUG-13 | | I. KRUGER INC. | | 13,232.10 | 12-AUG-13 | 13,232.10 | Reconciled |
| 341340 | 01-AUG-13 | | INDUSTRIAL METAL SUPPLY CO | | 79.44 | 06-AUG-13 | 79.44 | Reconciled |
| 341341 | 01-AUG-13 | | INDUSTRIAL NETWORKING SOLUTIONS | | 1,168.12 | 05-AUG-13 | 1,168.12 | Reconciled |
| 341342 | 01-AUG-13 | | IRVINE COMMUNITY DEVELOPMENT COMPANY LLC | | 61,352.37 | 12-AUG-13 | 61,352.37 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 4
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|--------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341343 | 01-AUG-13 | | IRVINE PACIFIC, LP | | 588.20 | 06-AUG-13 | 588.20 | Reconciled |
| 341344 | 01-AUG-13 | | IRVINE PIPE & SUPPLY INC | | 4,867.19 | 02-AUG-13 | 4,867.19 | Reconciled |
| 341345 | 01-AUG-13 | | JCI JONES CHEMICALS INC | | 2,935.07 | 05-AUG-13 | 2,935.07 | Reconciled |
| 341346 | 01-AUG-13 | | JERISAT, MARTIN | | 69.59 | 12-AUG-13 | 69.59 | Reconciled |
| 341347 | 01-AUG-13 | | JOHN MICHAEL COVAS | | 134.00 | 15-AUG-13 | 134.00 | Reconciled |
| 341348 | 01-AUG-13 | | JULIAN, ERIC | | 59.53 | | | Negotiable |
| 341349 | 01-AUG-13 | | KB HOMES | | 55.21 | | | Negotiable |

| | | | | | | | |
|--------|-----------|---|-----------|-----------|-----------|--|------------|
| 341350 | 01-AUG-13 | KDG INVESTMENTS INC | 230.16 | | | | Negotiable |
| 341351 | 01-AUG-13 | KEEGAN, DAVID | 521.32 | 06-AUG-13 | 521.32 | | Reconciled |
| 341352 | 01-AUG-13 | KENNEDY, RICK | 17.87 | | | | Negotiable |
| 341353 | 01-AUG-13 | KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES | 2,000.00 | 05-AUG-13 | 2,000.00 | | Reconciled |
| 341354 | 01-AUG-13 | KIM, KYUNG AE | 15.00 | | | | Negotiable |
| 341355 | 01-AUG-13 | KPRS CONSTRUCTION SERVICES, INC | 351.79 | 06-AUG-13 | 351.79 | | Reconciled |
| 341356 | 01-AUG-13 | LAGUNA BEACH COUNTY WATER DISTRICT | 902.17 | 14-AUG-13 | 902.17 | | Reconciled |
| 341357 | 01-AUG-13 | LAKE WEEDERS DIGEST, LLC | 4,529.68 | | | | Negotiable |
| 341358 | 01-AUG-13 | LARSEN, KELLY | 24.02 | | | | Negotiable |
| 341359 | 01-AUG-13 | LENOVO UNITED STATES INC | 8,211.76 | 07-AUG-13 | 8,211.76 | | Reconciled |
| 341360 | 01-AUG-13 | LEWIS, STANLEY | 4.07 | 05-AUG-13 | 4.07 | | Reconciled |
| 341361 | 01-AUG-13 | LGC GEOTECHNICAL, INC. | 6,336.30 | 09-AUG-13 | 6,336.30 | | Reconciled |
| 341362 | 01-AUG-13 | LOVE, CRYSTAL | 0.70 | | | | Negotiable |
| 341363 | 01-AUG-13 | LUBRICATION ENGINEERS, INC. | 5,509.25 | 08-AUG-13 | 5,509.25 | | Reconciled |
| 341364 | 01-AUG-13 | LUPOLI, LEO | 236.03 | | | | Negotiable |
| 341365 | 01-AUG-13 | MALCOLM FIRNIE INC | 35,629.08 | 08-AUG-13 | 35,629.08 | | Reconciled |
| 341366 | 01-AUG-13 | MANNASON, ALAN A | 26.02 | 06-AUG-13 | 26.02 | | Reconciled |
| 341367 | 01-AUG-13 | MAYER HOFFMAN MCCANN P.C. | 16,063.00 | 08-AUG-13 | 16,063.00 | | Reconciled |
| 341368 | 01-AUG-13 | MBC APPLIED ENVIRONMENTAL SCIENCES | 1,250.00 | 02-AUG-13 | 1,250.00 | | Reconciled |
| 341369 | 01-AUG-13 | MC MASTER CARR SUPPLY CO | 636.64 | 06-AUG-13 | 636.64 | | Reconciled |
| 341370 | 01-AUG-13 | MERCHANTS LANDSCAPE SERVICES INC | 7,280.00 | 06-AUG-13 | 7,280.00 | | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 5
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341371 | | 01-AUG-13 | MGH PAINTING INC | | 3,995.00 | 02-AUG-13 | 3,995.00 | Reconciled |
| 341372 | | 01-AUG-13 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,111.32 | 05-AUG-13 | 1,111.32 | Reconciled |
| 341373 | | 01-AUG-13 | NATIONAL READY MIXED CONCRETE CO | | 1,473.40 | 06-AUG-13 | 1,473.40 | Reconciled |
| 341374 | | 01-AUG-13 | NATIONAL READY MIXED CONCRETE CO | | 520.36 | 05-AUG-13 | 520.36 | Reconciled |
| 341375 | | 01-AUG-13 | OCEAN BLUE ENVIRONMENTAL SERVICES INC | | 778.23 | 08-AUG-13 | 778.23 | Reconciled |
| 341376 | | 01-AUG-13 | OLEN PROPERTIES | | 1,100.06 | 02-AUG-13 | 1,100.06 | Reconciled |
| 341377 | | 01-AUG-13 | OLIN CORPORATION | | 44,355.86 | 12-AUG-13 | 44,355.86 | Reconciled |
| 341378 | | 01-AUG-13 | ONESOURCE | | 5,156.85 | 07-AUG-13 | 5,156.85 | Reconciled |
| 341379 | | 01-AUG-13 | DISTRIBUTORS LLC ORANGE COUNTY FIRE AUTHORITY | | 353.00 | 06-AUG-13 | 353.00 | Reconciled |
| 341380 | | 01-AUG-13 | ORANGE COUNTY TREASURER | | 2,900.00 | 06-AUG-13 | 2,900.00 | Reconciled |
| 341381 | | 01-AUG-13 | PARADA PAINTING INC | | 53,200.00 | 09-AUG-13 | 53,200.00 | Reconciled |
| 341382 | | 01-AUG-13 | PARKHOUSE TIRE INC | | 6,659.38 | 08-AUG-13 | 6,659.38 | Reconciled |
| 341383 | | 01-AUG-13 | PARKWAY LAWNMOWER SHOP | | 243.73 | 05-AUG-13 | 243.73 | Reconciled |
| 341384 | | 01-AUG-13 | PERKINELMER HEALTH SCIENCES INC | | 632.68 | 06-AUG-13 | 632.68 | Reconciled |
| 341385 | | 01-AUG-13 | PINNACLE LANDSCAPE COMPANY | | 6,560.00 | 07-AUG-13 | 6,560.00 | Reconciled |
| 341386 | | 01-AUG-13 | POSEY, WAYNE | | 1,200.00 | 01-AUG-13 | 1,200.00 | Reconciled |
| 341387 | | 01-AUG-13 | PRAXAIR | | 5,536.55 | 12-AUG-13 | 5,536.55 | Reconciled |
| 341388 | | 01-AUG-13 | DISTRIBUTION INC PTI SAND & GRAVEL INC | | 1,431.03 | 07-AUG-13 | 1,431.03 | Reconciled |
| 341389 | | 01-AUG-13 | PURE EFFECT INC | | 5,955.00 | 06-AUG-13 | 5,955.00 | Reconciled |
| 341390 | | 01-AUG-13 | PVF SALES, INC. | | 712.04 | 05-AUG-13 | 712.04 | Reconciled |
| 341391 | | 01-AUG-13 | RAM AIR ENGINEERING INC | | 8,629.93 | 09-AUG-13 | 8,629.93 | Reconciled |
| 341392 | | 01-AUG-13 | RBF CONSULTING | | 6,278.53 | 09-AUG-13 | 6,278.53 | Reconciled |
| 341393 | | 01-AUG-13 | ROHELLA, MOHIT | | 155.08 | | | Negotiable |
| 341394 | | 01-AUG-13 | SANTA ANA BLUE PRINT | | 2,266.73 | 05-AUG-13 | 2,266.73 | Reconciled |
| 341395 | | 01-AUG-13 | SEAL ANALYTICAL INC | | 9,800.00 | 08-AUG-13 | 9,800.00 | Reconciled |
| 341396 | | 01-AUG-13 | SHAMROCK SUPPLY CO INC | | 468.59 | 02-AUG-13 | 468.59 | Reconciled |
| 341397 | | 01-AUG-13 | SHAW, ROBERT | | 15.00 | 13-AUG-13 | 15.00 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24

BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 6
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341398 | | 01-AUG-13 | SILVERIO, RICCA | | 25.90 | 09-AUG-13 | 25.90 | Reconciled |
| 341399 | | 01-AUG-13 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | | 5,988.79 | 08-AUG-13 | 5,988.79 | Reconciled |
| 341400 | | 01-AUG-13 | SOUTH COAST WATER CO. | | 65.00 | 06-AUG-13 | 65.00 | Reconciled |
| 341401 | | 01-AUG-13 | SOUTH COAST WATER DISTRICT | | 2,582.50 | 06-AUG-13 | 2,582.50 | Reconciled |
| 341402 | | 01-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 594,676.02 | 02-AUG-13 | 594,676.02 | Reconciled |
| 341403 | | 01-AUG-13 | SOUTHERN CALIFORNIA SECURITY CENTER, INC. | | 52.92 | 09-AUG-13 | 52.92 | Reconciled |
| 341404 | | 01-AUG-13 | SPARKLETTES | | 479.68 | 07-AUG-13 | 479.68 | Reconciled |
| 341405 | | 01-AUG-13 | SUNSTATE EQUIPMENT CO | | 68.05 | | | Negotiable |
| 341406 | | 01-AUG-13 | SYNAGRO SOUTH, LLC | | 1,250.70 | 06-AUG-13 | 1,250.70 | Reconciled |
| 341407 | | 01-AUG-13 | T AND S LARSEN MAINTENANCE | | 400.00 | 02-AUG-13 | 400.00 | Reconciled |
| 341408 | | 01-AUG-13 | TAYLOR MORRISON | | 62.23 | 14-AUG-13 | 62.23 | Reconciled |
| 341409 | | 01-AUG-13 | TEKDRAUPLICS | | 2,063.14 | 05-AUG-13 | 2,063.14 | Reconciled |
| 341410 | | 01-AUG-13 | TESTAMERICA | | 200.00 | 05-AUG-13 | 200.00 | Reconciled |
| 341411 | | 01-AUG-13 | LABORATORIES, INC | | 34,501.26 | 08-AUG-13 | 34,501.26 | Reconciled |
| 341412 | | 01-AUG-13 | TETRA TECH, INC | | 2,907.65 | 05-AUG-13 | 2,907.65 | Reconciled |
| 341413 | | 01-AUG-13 | THE IRVINE COMPANY LLC | | | | | |
| 341413 | | 01-AUG-13 | THYSSENKRUPP ELEVATOR | | 217.19 | 05-AUG-13 | 217.19 | Reconciled |
| 341414 | | 01-AUG-13 | TRANSCAT, INC | | 8,293.36 | 08-AUG-13 | 8,293.36 | Reconciled |
| 341415 | | 01-AUG-13 | TROPICAL PLAZA NURSERY INC | | 1,653.86 | 02-AUG-13 | 1,653.86 | Reconciled |
| 341416 | | 01-AUG-13 | TRUGREEN LANDCARE LLC | | 18,800.00 | 07-AUG-13 | 18,800.00 | Reconciled |
| 341417 | | 01-AUG-13 | UNITED PARCEL SERVICE INC | | 52.11 | 05-AUG-13 | 52.11 | Reconciled |
| 341418 | | 01-AUG-13 | UNITED SITE SERVICES OF CALIFORNIA INC | | 458.67 | 05-AUG-13 | 458.67 | Reconciled |
| 341419 | | 01-AUG-13 | UNITED STATES POSTAL SERVICE | | 56.54 | 07-AUG-13 | 56.54 | Reconciled |
| 341420 | | 01-AUG-13 | UNIVAR USA INC | | 2,571.00 | 05-AUG-13 | 2,571.00 | Reconciled |
| 341421 | | 01-AUG-13 | URS CORPORATION | | 3,350.00 | 05-AUG-13 | 3,350.00 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 7
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341422 | | 01-AUG-13 | US BANK NAT'L ASSOCIATION NORTH DAKOTA | | 43,466.69 | 12-AUG-13 | 43,466.69 | Reconciled |
| 341423 | | 01-AUG-13 | USA BLUEBOOK | | 1,797.71 | 08-AUG-13 | 1,797.71 | Reconciled |
| 341424 | | 01-AUG-13 | VERIZON CALIFORNIA INC | | 140.94 | 07-AUG-13 | 140.94 | Reconciled |
| 341425 | | 01-AUG-13 | VERIZON WIRELESS SERVICES LLC | | 6,059.22 | 09-AUG-13 | 6,059.22 | Reconciled |
| 341426 | | 01-AUG-13 | VWR INTERNATIONAL, LLC | | 767.19 | 05-AUG-13 | 767.19 | Reconciled |
| 341427 | | 01-AUG-13 | VYBORNEY, MEL | | 54.90 | | | Negotiable |
| 341428 | | 01-AUG-13 | WALTERS WHOLESALE ELECTRIC | | 179.37 | 06-AUG-13 | 179.37 | Reconciled |
| 341429 | | 01-AUG-13 | WASTE MANAGEMENT OF ORANGE COUNTY | | 1,671.43 | 07-AUG-13 | 1,671.43 | Reconciled |
| 341430 | | 01-AUG-13 | WATERLINE TECHNOLOGIES INC | | 4,085.00 | 07-AUG-13 | 4,085.00 | Reconciled |
| 341431 | | 01-AUG-13 | WAXIE'S ENTERPRISES, INC | | 1,844.74 | 05-AUG-13 | 1,844.74 | Reconciled |
| 341432 | | 01-AUG-13 | WECK LABORATORIES INC | | 1,105.00 | 02-AUG-13 | 1,105.00 | Reconciled |
| 341433 | | 01-AUG-13 | WILLIAM LYON HOMES | | 65.88 | | | Negotiable |
| 341434 | | 01-AUG-13 | WOLFF, LINDA | | 22.76 | 13-AUG-13 | 22.76 | Reconciled |
| 341435 | | 01-AUG-13 | WONG, MADELEINE | | 15.00 | 06-AUG-13 | 15.00 | Reconciled |
| 341436 | | 01-AUG-13 | YOON, CONNIE | | 25.03 | | | Negotiable |
| 341437 | | 01-AUG-13 | YORK INSURANCE SERVICES GROUP INC - CA | | 7,936.25 | 06-AUG-13 | 7,936.25 | Reconciled |
| 341438 | | 01-AUG-13 | YUN, JIYEON | | 12.20 | 06-AUG-13 | 12.20 | Reconciled |
| 341439 | | 01-AUG-13 | Alejandro Coria | | 109.99 | 02-AUG-13 | 109.99 | Reconciled |

| | | | | | | | |
|--------|-----------|--------------------------------|------------|-----------|-----------|----------|------------|
| 341440 | 01-AUG-13 | Christine Compton | | 7.91 | | | Negotiable |
| 341441 | 01-AUG-13 | Jacob Moeder | | 14.00 | 06-AUG-13 | 14.00 | Reconciled |
| 341442 | 01-AUG-13 | Michael Hoolihan | | 117.25 | 07-AUG-13 | 117.25 | Reconciled |
| 341443 | 06-AUG-13 | ANTHEM BLUE CROSS LOS ANGELES | | 2,012.80 | 12-AUG-13 | 2,012.80 | Reconciled |
| 341444 | 06-AUG-13 | ANTHEM BLUE CROSS LOS ANGELES | | 1,089.40 | 12-AUG-13 | 1,089.40 | Reconciled |
| 341445 | 06-AUG-13 | ANTHEM BLUE CROSS LOS ANGELES | | 415.62 | 12-AUG-13 | 415.62 | Reconciled |
| 341446 | 06-AUG-13 | PRINCIPAL LIFE INSURANCE 1 | DES MOINES | 25,524.72 | | | Negotiable |
| 341447 | 06-AUG-13 | A&A WIPING CLOTH CO | | 648.00 | 09-AUG-13 | 648.00 | Reconciled |
| 341448 | 06-AUG-13 | AKM CONSULTING ENGINEERS, INC. | | 4,775.00 | 09-AUG-13 | 4,775.00 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 8
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341449 | | 06-AUG-13 | ALEXANDER CONTRACT SERVICES INC | | 101,997.76 | 12-AUG-13 | 101,997.76 | Reconciled |
| 341450 | | 06-AUG-13 | ALLIANCE RESOURCE CONSULTING LLC | | 6,628.82 | 12-AUG-13 | 6,628.82 | Reconciled |
| 341451 | | 06-AUG-13 | ALPHA TRAFFIC SERVICES, INC. | | 610.00 | 14-AUG-13 | 610.00 | Reconciled |
| 341452 | | 06-AUG-13 | AM LEONARD INC | | 790.44 | 12-AUG-13 | 790.44 | Reconciled |
| 341453 | | 06-AUG-13 | AMERICAN MESSAGING SERVICES LLC | | 292.36 | 13-AUG-13 | 292.36 | Reconciled |
| 341454 | | 06-AUG-13 | ARCADIS U.S., INC. | | 5,094.60 | 12-AUG-13 | 5,094.60 | Reconciled |
| 341455 | | 06-AUG-13 | AT&T | | 2,897.56 | 15-AUG-13 | 2,897.56 | Reconciled |
| 341456 | | 06-AUG-13 | BANK OF AMERICA MERRILL LYNCH | | 12,621.58 | 14-AUG-13 | 12,621.58 | Reconciled |
| 341457 | | 06-AUG-13 | BELL TOWER FLORIST & GIFTS | | 70.19 | | | Negotiable |
| 341458 | | 06-AUG-13 | BOWIE, ARNESON, WILES & GIANNONE | | 25,737.69 | 13-AUG-13 | 25,737.69 | Reconciled |
| 341459 | | 06-AUG-13 | BUSH & ASSOCIATES INC | | 8,952.00 | | | Negotiable |
| 341460 | | 06-AUG-13 | CALIFORNIA BARRICADE INC | | 2,297.56 | 09-AUG-13 | 2,297.56 | Reconciled |
| 341461 | | 06-AUG-13 | CANON SOLUTIONS AMERICA, INC. | | 407.01 | 09-AUG-13 | 407.01 | Reconciled |
| 341462 | | 06-AUG-13 | COMMERCIAL CLEANING SYSTEMS | | 240.00 | 09-AUG-13 | 240.00 | Reconciled |
| 341463 | | 06-AUG-13 | CONEYBEARE INC | | 5,302.80 | 13-AUG-13 | 5,302.80 | Reconciled |
| 341464 | | 06-AUG-13 | CORELOGIC INC | | 48.00 | 12-AUG-13 | 48.00 | Reconciled |
| 341465 | | 06-AUG-13 | ENDRESS AND HAUSER INC | | 5,865.77 | 12-AUG-13 | 5,865.77 | Reconciled |
| 341466 | | 06-AUG-13 | FARRELL & ASSOCIATES | | 1,074.56 | 09-AUG-13 | 1,074.56 | Reconciled |
| 341467 | | 06-AUG-13 | FEDEX | | 321.31 | 13-AUG-13 | 321.31 | Reconciled |
| 341468 | | 06-AUG-13 | FLO SYSTEMS INC | | 37,125.00 | 12-AUG-13 | 37,125.00 | Reconciled |
| 341469 | | 06-AUG-13 | GANAHL LUMBER CO. | | 2,406.49 | 09-AUG-13 | 2,406.49 | Reconciled |
| 341470 | | 06-AUG-13 | GEOSCIENCE SUPPORT SERVICES INC | | 24,382.00 | 12-AUG-13 | 24,382.00 | Reconciled |
| 341471 | | 06-AUG-13 | GOLDMAN, SACHS & CO | | 19,132.44 | 13-AUG-13 | 19,132.44 | Reconciled |
| 341472 | | 06-AUG-13 | GRAINGER | | 646.70 | 12-AUG-13 | 646.70 | Reconciled |
| 341473 | | 06-AUG-13 | HOME DEPOT USA INC | | 217.85 | 12-AUG-13 | 217.85 | Reconciled |
| 341474 | | 06-AUG-13 | HOPKINS TECHNICAL PRODUCTS INC | | 1,929.49 | 12-AUG-13 | 1,929.49 | Reconciled |
| 341475 | | 06-AUG-13 | II FUELS INC | | 27,581.12 | 09-AUG-13 | 27,581.12 | Reconciled |
| 341476 | | 06-AUG-13 | IRVINE PIPE & SUPPLY INC | | 207.80 | 08-AUG-13 | 207.80 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 9
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341477 | | 06-AUG-13 | J. COLON COATINGS, INC. | | 16,985.00 | 13-AUG-13 | 16,985.00 | Reconciled |
| 341478 | | 06-AUG-13 | JCI JONES CHEMICALS INC | | 5,505.50 | 12-AUG-13 | 5,505.50 | Reconciled |
| 341479 | | 06-AUG-13 | LEWIS BRISBOIS BISGAARD AND SMITH LLP | | 2,567.66 | 14-AUG-13 | 2,567.66 | Reconciled |
| 341480 | | 06-AUG-13 | LUBRICATION ENGINEERS, INC. | | 3,873.81 | 12-AUG-13 | 3,873.81 | Reconciled |
| 341481 | | 06-AUG-13 | MC MASTER CARR SUPPLY CO | | 905.58 | 13-AUG-13 | 905.58 | Reconciled |
| 341482 | | 06-AUG-13 | MESA INTERNATIONAL TECHNOLOGIES, INC. | | 324.00 | 14-AUG-13 | 324.00 | Reconciled |

| | | | | | | | |
|--------|-----------|---|--|-----------|-----------|-----------|------------|
| 341483 | 06-AUG-13 | MISCOWATER | | 978.52 | 13-AUG-13 | 978.52 | Reconciled |
| 341484 | 06-AUG-13 | NURSERY PRODUCTS LLC | | 17,050.87 | 12-AUG-13 | 17,050.87 | Reconciled |
| 341485 | 06-AUG-13 | OCEAN BLUE ENVIRONMENTAL SERVICES INC | | 1,346.95 | | | Negotiable |
| 341486 | 06-AUG-13 | OLIN CORPORATION | | 2,831.56 | 12-AUG-13 | 2,831.56 | Reconciled |
| 341487 | 06-AUG-13 | ONESOURCE DISTRIBUTORS LLC | | 584.21 | 09-AUG-13 | 584.21 | Reconciled |
| 341488 | 06-AUG-13 | PRAXAIR DISTRIBUTION INC | | 205.86 | 13-AUG-13 | 205.86 | Reconciled |
| 341489 | 06-AUG-13 | R & R INDUSTRIAL SERVICES, INC. | | 580.50 | 09-AUG-13 | 580.50 | Reconciled |
| 341490 | 06-AUG-13 | R&B AUTOMATION INC | | 11,578.73 | 12-AUG-13 | 11,578.73 | Reconciled |
| 341491 | 06-AUG-13 | RAINBOW DISPOSAL CO INC | | 506.33 | 08-AUG-13 | 506.33 | Reconciled |
| 341492 | 06-AUG-13 | RAM AIR ENGINEERING INC | | 1,528.93 | 09-AUG-13 | 1,528.93 | Reconciled |
| 341493 | 06-AUG-13 | REACH EMPLOYEE ASSISTANCE INC | | 865.20 | 13-AUG-13 | 865.20 | Reconciled |
| 341494 | 06-AUG-13 | REED, JAMES D | | 1,936.59 | | | Negotiable |
| 341495 | 06-AUG-13 | RESPONSE ENVELOPE, INC | | 3,888.27 | 12-AUG-13 | 3,888.27 | Reconciled |
| 341496 | 06-AUG-13 | SCHINDLER ELEVATOR CORPORATION | | 181.32 | 13-AUG-13 | 181.32 | Reconciled |
| 341497 | 06-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 45,843.22 | 09-AUG-13 | 45,843.22 | Reconciled |
| 341498 | 06-AUG-13 | SOUTHERN CALIFORNIA SECURITY CENTER, INC. | | 30.78 | 13-AUG-13 | 30.78 | Reconciled |
| 341499 | 06-AUG-13 | SPARKLETTS | | 218.39 | 13-AUG-13 | 218.39 | Reconciled |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 10
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341500 | 06-AUG-13 | 06-AUG-13 | SUPERMEDIA LLC | | 72.75 | 15-AUG-13 | 72.75 | Reconciled |
| 341501 | 06-AUG-13 | 06-AUG-13 | SWAINS ELECTRIC MOTOR SERVICE | | 2,851.00 | | | Negotiable |
| 341502 | 06-AUG-13 | 06-AUG-13 | TETRA TECH, INC | | 20,307.50 | 12-AUG-13 | 20,307.50 | Reconciled |
| 341503 | 06-AUG-13 | 06-AUG-13 | THE GAS COMPANY | | 69.21 | 13-AUG-13 | 69.21 | Reconciled |
| 341504 | 06-AUG-13 | 06-AUG-13 | TROPICAL PLAZA NURSERY INC | | 3,299.00 | 12-AUG-13 | 3,299.00 | Reconciled |
| 341505 | 06-AUG-13 | 06-AUG-13 | UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA | | 775.50 | 13-AUG-13 | 775.50 | Reconciled |
| 341506 | 06-AUG-13 | 06-AUG-13 | UNITED PARCEL SERVICE INC | | 22.00 | 09-AUG-13 | 22.00 | Reconciled |
| 341507 | 06-AUG-13 | 06-AUG-13 | UNITED STATES POST OFFICE | | 24,580.00 | 13-AUG-13 | 24,580.00 | Reconciled |
| 341508 | 06-AUG-13 | 06-AUG-13 | USA BLUEBOOK | | 19,240.93 | 14-AUG-13 | 19,240.93 | Reconciled |
| 341509 | 06-AUG-13 | 06-AUG-13 | VERIZON CALIFORNIA INC | | 246.37 | 12-AUG-13 | 246.37 | Reconciled |
| 341510 | 06-AUG-13 | 06-AUG-13 | VERIZON WIRELESS SERVICES LLC | | 832.47 | 12-AUG-13 | 832.47 | Reconciled |
| 341511 | 06-AUG-13 | 06-AUG-13 | VWR INTERNATIONAL, LLC | | 8.53 | 12-AUG-13 | 8.53 | Reconciled |
| 341512 | 06-AUG-13 | 06-AUG-13 | WALTERS WHOLESALE ELECTRIC | | 156.06 | 14-AUG-13 | 156.06 | Reconciled |
| 341513 | 06-AUG-13 | 06-AUG-13 | WATERLINE TECHNOLOGIES INC | | 2,840.00 | 09-AUG-13 | 2,840.00 | Reconciled |
| 341514 | 06-AUG-13 | 06-AUG-13 | WOODRUFF, SPRADLIN & SMART APC | | 76.50 | 12-AUG-13 | 76.50 | Reconciled |
| 341515 | 08-AUG-13 | 08-AUG-13 | CITY OF TUSTIN | | 275.00 | | | Negotiable |
| 341516 | 08-AUG-13 | 08-AUG-13 | DIONEX CORPORATION | | 26,360.54 | | | Negotiable |
| 341517 | 08-AUG-13 | 08-AUG-13 | FEDEX | | 54.86 | 15-AUG-13 | 54.86 | Reconciled |
| 341518 | 08-AUG-13 | 08-AUG-13 | IRVINE PIPE & SUPPLY INC | | 1,340.63 | 12-AUG-13 | 1,340.63 | Reconciled |
| 341519 | 08-AUG-13 | 08-AUG-13 | LOTUS CONSULTING | | 8,640.00 | 14-AUG-13 | 8,640.00 | Reconciled |
| 341520 | 08-AUG-13 | 08-AUG-13 | MC MASTER CARR SUPPLY CO | | 546.19 | 12-AUG-13 | 546.19 | Reconciled |
| 341521 | 08-AUG-13 | 08-AUG-13 | OLIN CORPORATION | | 2,838.35 | 13-AUG-13 | 2,838.35 | Reconciled |
| 341522 | 08-AUG-13 | 08-AUG-13 | PERKINELMER HEALTH SCIENCES INC | | 30,492.00 | | | Negotiable |
| 341523 | 08-AUG-13 | 08-AUG-13 | PRUDENTIAL OVERALL SUPPLY | | 3,325.18 | 12-AUG-13 | 3,325.18 | Reconciled |
| 341524 | 08-AUG-13 | 08-AUG-13 | SUNNYHILLS RESTORATION | | 20,081.81 | 13-AUG-13 | 20,081.81 | Reconciled |
| 341525 | 08-AUG-13 | 08-AUG-13 | Anthony Mossbarger | | 16.18 | 13-AUG-13 | 16.18 | Reconciled |
| 341526 | 08-AUG-13 | 08-AUG-13 | Arseny Kalinsky | | 22.00 | | | Negotiable |
| 341527 | 08-AUG-13 | 08-AUG-13 | Dale Alberts | | 100.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 11
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|-----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341528 | | 08-AUG-13 | Kevin Burton | | 14.00 | 09-AUG-13 | 14.00 | Reconciled |
| 341529 | | 08-AUG-13 | Malcolm Cortez | | 77.41 | | | Negotiable |
| 341530 | | 08-AUG-13 | Mark Sarabia | | 118.00 | | | Negotiable |
| 341531 | | 08-AUG-13 | Quynh Nguyen | | 251.12 | | | Negotiable |
| 341532 | | 08-AUG-13 | Soha Vazirnia | | 17.79 | | | Negotiable |
| 341533 | | 08-AUG-13 | Truc Mai Bertsch | | 86.39 | 12-AUG-13 | 86.39 | Reconciled |
| 341534 | | 09-AUG-13 | ALLIANCE AG SERVICES, LLC | | 1,600.00 | | | Negotiable |
| 341535 | | 09-AUG-13 | BOND LOGISTIX LLC | | 3,000.00 | 14-AUG-13 | 3,000.00 | Reconciled |
| 341536 | | 09-AUG-13 | C WELLS PIPELINE MATERIALS INC | | 918.00 | 15-AUG-13 | 918.00 | Reconciled |
| 341537 | | 09-AUG-13 | CLEAN ENERGY FUELS | | 1,041.97 | | | Negotiable |
| 341538 | | 09-AUG-13 | CLEARINGHOUSE | | 528.45 | 14-AUG-13 | 528.45 | Reconciled |
| 341539 | | 09-AUG-13 | CONDITION MONITORING SERVICES INC | | 4,927.50 | 15-AUG-13 | 4,927.50 | Reconciled |
| 341540 | | 09-AUG-13 | COUTE, JOHN | | 232.18 | 14-AUG-13 | 232.18 | Reconciled |
| 341541 | | 09-AUG-13 | ECOLOGY CONTROL INDUSTRIES | | 2,575.53 | 14-AUG-13 | 2,575.53 | Reconciled |
| 341542 | | 09-AUG-13 | EMA INC | | 2,700.00 | 15-AUG-13 | 2,700.00 | Reconciled |
| 341543 | | 09-AUG-13 | FISHER SCIENTIFIC COMPANY LLC | | 1,998.33 | 14-AUG-13 | 1,998.33 | Reconciled |
| 341544 | | 09-AUG-13 | GREENBERG, STEVEN | | 4,169.50 | 13-AUG-13 | 4,169.50 | Reconciled |
| 341545 | | 09-AUG-13 | HEALTH SCIENCE ASSOCIATES, INC. | | 661.00 | | | Negotiable |
| 341546 | | 09-AUG-13 | HR/LABOR SOLUTIONS INC | | 3,113.71 | 14-AUG-13 | 3,113.71 | Reconciled |
| 341547 | | 09-AUG-13 | HUNSAKER & ASSOCIATES IRVINE | | 3,136.00 | 14-AUG-13 | 3,136.00 | Reconciled |
| 341548 | | 09-AUG-13 | INTERNAL REVENUE SERVICE | | 25.00 | | | Negotiable |
| 341549 | | 09-AUG-13 | IRVINE PACIFIC, LP | | 101.07 | | | Negotiable |
| 341550 | | 09-AUG-13 | IRWD EMPLOYEE ASSOCIATION | | 470.00 | | | Negotiable |
| 341551 | | 09-AUG-13 | IRWD-PETTY CASH CUSTODIAN | | 834.19 | 12-AUG-13 | 834.19 | Reconciled |
| 341552 | | 09-AUG-13 | MITCHELL PEST CONTROL, INC. | | 400.00 | | | Negotiable |
| 341553 | | 09-AUG-13 | MOODY'S INVESTORS SERVICE INC | | 5,000.00 | 15-AUG-13 | 5,000.00 | Reconciled |
| 341554 | | 09-AUG-13 | MYERS & SONS HI-WAY SAFETY, INC. | | 2,827.44 | 14-AUG-13 | 2,827.44 | Reconciled |
| 341555 | | 09-AUG-13 | OLIN CORPORATON | | 2,785.19 | 15-AUG-13 | 2,785.19 | Reconciled |
| 341556 | | 09-AUG-13 | ORANGE COUNTY SHERIFF'S OFFICE | | 858.54 | | | Negotiable |

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Report Date: 03-SEP-2013 12:24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar) Page: 12
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341557 | | 09-AUG-13 | PAPER DEPOT DOCUMENT DESTRUCTION LLC | | 885.00 | | | Negotiable |
| 341558 | | 09-AUG-13 | PERKINELMER HEALTH SCIENCES INC | | 464.36 | | | Negotiable |
| 341559 | | 09-AUG-13 | PERS LONG TERM CARE | | 852.57 | | | Negotiable |
| 341560 | | 09-AUG-13 | PINNACLE LANDSCAPE COMPANY | | 251.19 | 13-AUG-13 | 251.19 | Reconciled |
| 341561 | | 09-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 9,515.99 | 14-AUG-13 | 9,515.99 | Reconciled |
| 341562 | | 09-AUG-13 | TAYLOR MORRISON | | 184.96 | 14-AUG-13 | 184.96 | Reconciled |
| 341563 | | 09-AUG-13 | TESCO CONTROLS INC | | 395.00 | 14-AUG-13 | 395.00 | Reconciled |
| 341564 | | 09-AUG-13 | TOXGUARD FLUID TECHNOLOGIES | | 194.15 | 15-AUG-13 | 194.15 | Reconciled |
| 341565 | | 09-AUG-13 | TRUGREEN LANDCARE LLC | | 551.88 | 14-AUG-13 | 551.88 | Reconciled |
| 341566 | | 15-AUG-13 | A & Y ASPHALT CONTRACTORS INC | | 7,530.00 | | | Negotiable |
| 341567 | | 15-AUG-13 | ADS LLC | | 1,291.00 | | | Negotiable |
| 341568 | | 15-AUG-13 | ALPHA TRAFFIC SERVICES, INC. | | 520.00 | | | Negotiable |
| 341569 | | 15-AUG-13 | AMERICAN GEOTECHNICAL, INC. | | 1,542.00 | | | Negotiable |
| 341570 | | 15-AUG-13 | APCO GRAPHICS INC | | 328.43 | | | Negotiable |
| 341571 | | 15-AUG-13 | BECKMAN COULTER INC | | 1,695.60 | | | Negotiable |
| 341572 | | 15-AUG-13 | BELL TOWER FLORIST & GIFTS | | 70.19 | | | Negotiable |
| 341573 | | 15-AUG-13 | BETTERCOM, INC. | | 20,566.18 | | | Negotiable |
| 341574 | | 15-AUG-13 | BIO-ACOUSTICAL CORP. | | 1,209.50 | | | Negotiable |

| | | | | | |
|--------|-----------|-------------------------------|--|----------|------------|
| 341575 | 15-AUG-13 | BRAY, MICHAEL | | 1,507.43 | Negotiable |
| 341576 | 15-AUG-13 | CONEBEARE INC | | 8,589.15 | Negotiable |
| 341577 | 15-AUG-13 | EMERGENCY POWER CONTROLS INC | | 2,400.00 | Negotiable |
| 341578 | 15-AUG-13 | ENDRESS AND HAUSER INC | | 5,950.37 | Negotiable |
| 341579 | 15-AUG-13 | EXECUTIVE LIGHTING & ELECTRIC | | 3,660.00 | Negotiable |
| 341580 | 15-AUG-13 | FISHER SCIENTIFIC COMPANY LLC | | 286.55 | Negotiable |
| 341581 | 15-AUG-13 | FS BRAINARD & COMPANY | | 1,992.75 | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 13
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341582 | | 15-AUG-13 | G.M. SAGER CONSTRUCTION CO, INC | | 25,000.00 | | | Negotiable |
| 341583 | | 15-AUG-13 | GALLADE CHEMICAL INC | | 1,566.00 | | | Negotiable |
| 341584 | | 15-AUG-13 | GRAINGER | | 442.58 | | | Negotiable |
| 341585 | | 15-AUG-13 | HACH COMPANY | | 425.49 | | | Negotiable |
| 341586 | | 15-AUG-13 | HORN, ROBERT | | 6,394.13 | | | Negotiable |
| 341587 | | 15-AUG-13 | IDEXX DISTRIBUTION, INC | | 5,454.27 | | | Negotiable |
| 341588 | | 15-AUG-13 | II FUELS INC | | 39,059.59 | | | Negotiable |
| 341589 | | 15-AUG-13 | INDUSTRIAL METAL SUPPLY CO | | 22.56 | | | Negotiable |
| 341590 | | 15-AUG-13 | INTERNATIONAL ECONOMIC DEVELOPMENT COUNCIL | | 2,500.00 | | | Negotiable |
| 341591 | | 15-AUG-13 | IRVINE PIPE & SUPPLY INC | | 662.48 | | | Negotiable |
| 341592 | | 15-AUG-13 | JCI JONES CHEMICALS INC | | 2,012.56 | | | Negotiable |
| 341593 | | 15-AUG-13 | JP MACHINE TOOL SERVICE | | 1,785.06 | | | Negotiable |
| 341594 | | 15-AUG-13 | KONECRANES INC | | 1,650.00 | | | Negotiable |
| 341595 | | 15-AUG-13 | LIAISON TECHNOLOGIES, INC. | | 2,551.50 | | | Negotiable |
| 341596 | | 15-AUG-13 | MAILFINANCE INC | | 6,620.72 | | | Negotiable |
| 341597 | | 15-AUG-13 | MC MASTER CARR SUPPLY CO | | 1,245.54 | | | Negotiable |
| 341598 | | 15-AUG-13 | METAL TECHNOLOGY | | 1,316.23 | | | Negotiable |
| 341599 | | 15-AUG-13 | NEW PIG CORPORATION | | 84.55 | | | Negotiable |
| 341600 | | 15-AUG-13 | NINYO & MOORE | | 2,972.50 | | | Negotiable |
| 341601 | | 15-AUG-13 | NOVELL INC | | 4,500.00 | | | Negotiable |
| 341602 | | 15-AUG-13 | O'HAREN GOVERNMENT RELATIONS | | 6,500.00 | | | Negotiable |
| 341603 | | 15-AUG-13 | OLIN CORPORATION | | 16,596.59 | | | Negotiable |
| 341604 | | 15-AUG-13 | ORANGE COUNTY PUMPING, INC. | | 485.00 | | | Negotiable |
| 341605 | | 15-AUG-13 | ORANGE COUNTY TREASURER | | 1,455.00 | | | Negotiable |
| 341606 | | 15-AUG-13 | PACIFIC GAS AND ELECTRIC COMPANY | | 21.16 | | | Negotiable |
| 341607 | | 15-AUG-13 | PHILLIPS PLYWOOD CO, INC. | | 1,453.77 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 14
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341608 | | 15-AUG-13 | PONTON INDUSTRIES INC | | 2,807.94 | | | Negotiable |
| 341609 | | 15-AUG-13 | R&B AUTOMATION INC | | 16,289.84 | | | Negotiable |
| 341610 | | 15-AUG-13 | SANTOS, AL | | 48.50 | | | Negotiable |
| 341611 | | 15-AUG-13 | SCIENTIFIC REFRIGERATION | | 228.75 | | | Negotiable |
| 341612 | | 15-AUG-13 | SHAMROCK SUPPLY CO INC | | 311.68 | | | Negotiable |
| 341613 | | 15-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 37,525.06 | | | Negotiable |
| 341614 | | 15-AUG-13 | THE FURMAN GROUP | | 10,090.00 | | | Negotiable |
| 341615 | | 15-AUG-13 | THE GAS COMPANY | | 913.48 | | | Negotiable |
| 341616 | | 15-AUG-13 | UNITED PARCEL SERVICE INC | | 49.99 | | | Negotiable |
| 341617 | | 15-AUG-13 | WALTERS WHOLESALE | | 507.82 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|-----------|-------------------------------------|------|----------------|--------------|----------------|------------|
| 341618 | | 15-AUG-13 | ELECTRIC WATER EDUCATION FOUNDATION | | 11,947.00 | | | Negotiable |
| 341619 | | 15-AUG-13 | WAXIE'S ENTERPRISES, INC | | 3,282.80 | | | Negotiable |
| 341620 | | 15-AUG-13 | Carlos Collazo | | 129.58 | | | Negotiable |
| 341621 | | 15-AUG-13 | Christine Compton | | 7.91 | | | Negotiable |
| 341622 | | 15-AUG-13 | Franklin Soto | | 129.71 | | | Negotiable |
| 341623 | | 15-AUG-13 | Leslie Bonkowski | | 131.93 | | | Negotiable |
| 341624 | | 15-AUG-13 | Martha Ramos | | 168.71 | | | Negotiable |
| 341625 | | 15-AUG-13 | Thomas Bonkowski | | 56.72 | | | Negotiable |
| 341626 | | 15-AUG-13 | AUTOZONE PARTS, INC. | | 443.99 | | | Negotiable |
| 341627 | | 15-AUG-13 | ONEYBEARE INC | | 14,543.85 | | | Negotiable |
| 341628 | | 15-AUG-13 | DELPHIN COMPUTER SUPPLY | | 636.60 | | | Negotiable |
| 341629 | | 15-AUG-13 | EAGLE GRAPHICS, INC | | 154.21 | | | Negotiable |
| 341630 | | 15-AUG-13 | ENDRESS AND HAUSER INC | | 3,762.72 | | | Negotiable |
| 341631 | | 15-AUG-13 | ENVIRONMENTAL RESOURCE ASSOCIATES | | 1,517.07 | | | Negotiable |
| 341632 | | 15-AUG-13 | FERGUSON ENTERPRISES, INC. | | 712.80 | | | Negotiable |
| 341633 | | 15-AUG-13 | GRAINGER | | 7,849.36 | | | Negotiable |
| 341634 | | 15-AUG-13 | HILL BROTHERS CHEMICAL COMPANY | | 1,991.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 15
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341635 | | 15-AUG-13 | KILL-N-BUGS TERMITE AND PEST CONTROL SERVICES | | 325.00 | | | Negotiable |
| 341636 | | 15-AUG-13 | KS DIRECT LLC | | 881.28 | | | Negotiable |
| 341637 | | 15-AUG-13 | LUBRICATION ENGINEERS, INC. | | 6,497.92 | | | Negotiable |
| 341638 | | 15-AUG-13 | MARSH RISK & INSURANCE SVCS | | 3,020.90 | | | Negotiable |
| 341639 | | 15-AUG-13 | MCR TECHNOLOGIES INC | | 6,241.14 | | | Negotiable |
| 341640 | | 15-AUG-13 | NATIONAL READY MIXED CONCRETE CO | | 400.68 | | | Negotiable |
| 341641 | | 15-AUG-13 | NOVELL INC | | 2,124.00 | | | Negotiable |
| 341642 | | 15-AUG-13 | OLIN CORPORATION | | 5,028.38 | | | Negotiable |
| 341643 | | 15-AUG-13 | ONESOURCE DISTRIBUTORS LLC | | 4,037.44 | | | Negotiable |
| 341644 | | 15-AUG-13 | ORANGE COUNTY TREASURER | | 70.00 | | | Negotiable |
| 341645 | | 15-AUG-13 | POLYDYNE INC | | 2,300.00 | | | Negotiable |
| 341646 | | 15-AUG-13 | PONTON INDUSTRIES INC | | 1,218.26 | | | Negotiable |
| 341647 | | 15-AUG-13 | PRAXAIR DISTRIBUTION INC | | 676.36 | | | Negotiable |
| 341648 | | 15-AUG-13 | SANTA ANA BLUE PRINT | | 543.16 | | | Negotiable |
| 341649 | | 15-AUG-13 | SECURTEC DISTRICT PATROL INC | | 1,600.00 | | | Negotiable |
| 341650 | | 15-AUG-13 | SOUTH COAST ANSWERING SERVICE | | 503.20 | | | Negotiable |
| 341651 | | 15-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 22,773.62 | | | Negotiable |
| 341652 | | 15-AUG-13 | THE GAS COMPANY | | 603.01 | | | Negotiable |
| 341653 | | 15-AUG-13 | TRANSCAT, INC | | 6,957.51 | | | Negotiable |
| 341654 | | 15-AUG-13 | TRIPAC MARKETING INC | | 295.98 | | | Negotiable |
| 341655 | | 15-AUG-13 | WALTON MOTORS & CONTROLS INC | | 715.26 | | | Negotiable |
| 341656 | | 15-AUG-13 | WECK LABORATORIES INC | | 535.00 | | | Negotiable |
| 341657 | | 15-AUG-13 | Carolyn German | | 78.54 | | | Negotiable |
| 341658 | | 15-AUG-13 | David Chaney | | 480.00 | | | Negotiable |
| 341659 | | 15-AUG-13 | David Paulson | | 319.00 | | | Negotiable |
| 341660 | | 15-AUG-13 | Debbie Kanoff | | 309.45 | | | Negotiable |
| 341661 | | 15-AUG-13 | Douglas Reinhart | | 116.79 | | | Negotiable |
| 341662 | | 15-AUG-13 | Gretchen Maswadeh | | 88.14 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 16
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |

| | | | | |
|--------|-----------|--|-----------|------------|
| 341663 | 15-AUG-13 | Steven LaMar | 879.26 | Negotiable |
| 341664 | 19-AUG-13 | ADS LLC | 700.00 | Negotiable |
| 341665 | 19-AUG-13 | AGILENT TECHNOLOGIES, INC. | 22,559.40 | Negotiable |
| 341666 | 19-AUG-13 | ALPHA TRAFFIC SERVICES, INC. | 470.00 | Negotiable |
| 341667 | 19-AUG-13 | ALSTON & BIRD LLP | 2,375.00 | Negotiable |
| 341668 | 19-AUG-13 | APPLIED INDUSTRIAL TECHNOLOGIES - CA LLC | 1,211.82 | Negotiable |
| 341669 | 19-AUG-13 | AQUA BEN CORPORATION | 33,653.23 | Negotiable |
| 341670 | 19-AUG-13 | AT&T | 121.50 | Negotiable |
| 341671 | 19-AUG-13 | AT&T | 3,820.47 | Negotiable |
| 341672 | 19-AUG-13 | AT&T | 1,948.87 | Negotiable |
| 341673 | 19-AUG-13 | AUTOZONE PARTS, INC. | 357.72 | Negotiable |
| 341674 | 19-AUG-13 | BANK OF AMERICA | 10,383.25 | Negotiable |
| 341675 | 19-AUG-13 | BDC SPECIAL WASTE | 400.00 | Negotiable |
| 341676 | 19-AUG-13 | BIOMAGIC INC | 8,606.05 | Negotiable |
| 341677 | 19-AUG-13 | BORCHARD SURVEYING & MAPPING, INC. | 7,422.50 | Negotiable |
| 341678 | 19-AUG-13 | BOTTOM LINE UTILITY SOLUTIONS, INC. | 13,641.77 | Negotiable |
| 341679 | 19-AUG-13 | BOYCE, BEN | 15.00 | Negotiable |
| 341680 | 19-AUG-13 | BRENNTAG PACIFIC INC | 34,375.15 | Negotiable |
| 341681 | 19-AUG-13 | C WELLS PIPELINE MATERIALS INC | 9,998.64 | Negotiable |
| 341682 | 19-AUG-13 | CALIFORNIA BARRICADE INC | 3,585.00 | Negotiable |
| 341683 | 19-AUG-13 | CANON FINANCIAL SERVICES, INC | 6,874.26 | Negotiable |
| 341684 | 19-AUG-13 | CARL WARREN & CO | 7,033.15 | Negotiable |
| 341685 | 19-AUG-13 | CITY OF TUSTIN | 304.92 | Negotiable |
| 341686 | 19-AUG-13 | CNC ENGINEERING, INC | 150.00 | Negotiable |
| 341687 | 19-AUG-13 | COCA-COLA REFRESHMENTS USA, INC. | 134.87 | Negotiable |
| 341688 | 19-AUG-13 | COMMERCIAL CLEANING SYSTEMS | 11,238.99 | Negotiable |
| 341689 | 19-AUG-13 | COMMERCIAL DOOR OF ORANGE COUNTY, INC. | 4,873.00 | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 17
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341690 | | 19-AUG-13 | ONEYBEARE INC | | 2,700.80 | | | Negotiable |
| 341691 | | 19-AUG-13 | COUNTY OF ORANGE | | 18,630.00 | | | Voided |
| 341692 | | 19-AUG-13 | CR & R INCORPORATED | | 12.30 | | | Voided |
| 341693 | | 19-AUG-13 | CREDENTIAL CHECK CORPORATION | | 639.36 | | | Voided |
| 341694 | | 19-AUG-13 | DATA CLEAN CORPORATION | | 513.25 | | | Voided |
| 341695 | | 19-AUG-13 | DATASITE INC | | 622.00 | | | Voided |
| 341696 | | 19-AUG-13 | DCSE INC | | 5,028.75 | | | Voided |
| 341697 | | 19-AUG-13 | DEE JASPAR & ASSOCIATES, INC. | | 4,802.65 | | | Voided |
| 341698 | | 19-AUG-13 | DEPARTMENT OF CONSUMER AFFAIRS | | 115.00 | | | Voided |
| 341699 | | 19-AUG-13 | EI&C ENGINEERING INC | | 16,840.00 | | | Voided |
| 341700 | | 19-AUG-13 | EMPLOYEE BENEFIT SPECIALIST, INC | | 655.00 | | | Voided |
| 341701 | | 19-AUG-13 | ENDRESS AND HAUSER INC | | 4,753.65 | | | Voided |
| 341702 | | 19-AUG-13 | EXPRESSAIR | | 70.50 | | | Voided |
| 341703 | | 19-AUG-13 | FARRELL & ASSOCIATES | | 135.38 | | | Voided |
| 341704 | | 19-AUG-13 | FEDEX | | 303.40 | | | Voided |
| 341705 | | 19-AUG-13 | FERGUSON, DAVID | | 4,348.72 | | | Voided |
| 341706 | | 19-AUG-13 | FIRST CHOICE SERVICES | | 1,054.13 | | | Voided |
| 341707 | | 19-AUG-13 | FISHER SCIENTIFIC COMPANY LLC | | 3,652.77 | | | Voided |
| 341708 | | 19-AUG-13 | FIVE POINT PARTNERS LLC | | 56,350.49 | | | Voided |
| 341709 | | 19-AUG-13 | FOX RACING INC | | 713.83 | | | Voided |
| 341710 | | 19-AUG-13 | FRONTLINE MANAGEMENT INC | | 360.60 | | | Voided |
| 341711 | | 19-AUG-13 | FS BRAINARD & CO | | 7,360.00 | | | Voided |
| 341712 | | 19-AUG-13 | GANAHL LUMBER CO. | | 6.47 | | | Voided |
| 341713 | | 19-AUG-13 | GCI CONSTRUCTION, | | 32,038.75 | | | Voided |

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|--------|-----------|----------------------------------|----------|--------|
| 341714 | 19-AUG-13 | INC. GENERAL ELECTRIC COMPANY | 9,815.04 | Voiced |
| 341715 | 19-AUG-13 | GEORGE YARDLEY CO INC | 551.23 | Voiced |
| 341716 | 19-AUG-13 | GEOSYNTEC CONSULTANTS INC | 856.50 | Voiced |
| 341717 | 19-AUG-13 | GRAINGER | 271.19 | Voiced |
| 341718 | 19-AUG-13 | HACH COMPANY | 873.07 | Voiced |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 18
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341719 | | 19-AUG-13 | HADRONEX INC | | 9,667.00 | | | Voiced |
| 341720 | | 19-AUG-13 | HAGEMEYER NORTH AMERICA INC | | 304.00 | | | Voiced |
| 341721 | | 19-AUG-13 | HERMAN WEISSKER INC | | 671.18 | | | Voiced |
| 341722 | | 19-AUG-13 | HILL BROTHERS CHEMICAL COMPANY | | 14,845.20 | | | Voiced |
| 341723 | | 19-AUG-13 | HOME DEPOT USA INC | | 639.82 | | | Voiced |
| 341724 | | 19-AUG-13 | IBM CORPORATION | | 215.00 | | | Voiced |
| 341725 | | 19-AUG-13 | IQM2 INC. | | 850.00 | | | Voiced |
| 341726 | | 19-AUG-13 | IRVINE PACIFIC, LP | | 102.57 | | | Voiced |
| 341727 | | 19-AUG-13 | IRVINE PIPE & SUPPLY INC | | 263.44 | | | Voiced |
| 341728 | | 19-AUG-13 | JIMNI SYSTEMS INC | | 730.00 | | | Voiced |
| 341729 | | 19-AUG-13 | JOHN G. ALEVIZOS D.O. INC. | | 250.00 | | | Voiced |
| 341730 | | 19-AUG-13 | KONECRANES INC | | 1,807.00 | | | Voiced |
| 341731 | | 19-AUG-13 | LAGUNA TOOL | | 1,504.60 | | | Voiced |
| 341732 | | 19-AUG-13 | LEE & RO, INC. | | 42,166.83 | | | Voiced |
| 341733 | | 19-AUG-13 | LILLESTRAND LEADERSHIP CONSULTING, INC. | | 864.91 | | | Voiced |
| 341734 | | 19-AUG-13 | MAG SYSTEMS, INC. | | 596.40 | | | Voiced |
| 341735 | | 19-AUG-13 | MAILFINANCE INC | | 9,931.08 | | | Voiced |
| 341736 | | 19-AUG-13 | MARKET-THINK LLC | | 3,900.00 | | | Voiced |
| 341737 | | 19-AUG-13 | MCCROMETER, INC. | | 122.37 | | | Voiced |
| 341738 | | 19-AUG-13 | MISSION COMMUNICATIONS LLC | | 5,002.61 | | | Voiced |
| 341739 | | 19-AUG-13 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,111.32 | | | Voiced |
| 341740 | | 19-AUG-13 | MUTUAL PROPANE | | 18.00 | | | Voiced |
| 341741 | | 19-AUG-13 | NATIONAL READY MIXED CONCRETE CO | | 761.60 | | | Voiced |
| 341742 | | 19-AUG-13 | NATURES IMAGE INC | | 852.00 | | | Voiced |
| 341743 | | 19-AUG-13 | NEPTUNE TECHNOLOGY GROUP, INC. | | 48,405.60 | | | Voiced |
| 341744 | | 19-AUG-13 | NOVACOAST INC | | 862.50 | | | Voiced |
| 341745 | | 19-AUG-13 | OCWA | | 30.00 | | | Voiced |
| 341746 | | 19-AUG-13 | ONESOURCE DISTRIBUTORS LLC | | 2,367.96 | | | Voiced |
| 341747 | | 19-AUG-13 | ORANGE COUNTY TREASURER | | 264.55 | | | Voiced |
| 341748 | | 19-AUG-13 | OUTSOURCE TECHNICAL LLC | | 25,469.00 | | | Voiced |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 19
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341749 | | 19-AUG-13 | PACIFIC RESOURCE RECOVERY | | 1,274.80 | | | Voiced |
| 341750 | | 19-AUG-13 | PEARPOINT | | 8,035.23 | | | Voiced |
| 341751 | | 19-AUG-13 | PERKINELMER HEALTH SCIENCES INC | | 78.80 | | | Voiced |
| 341752 | | 19-AUG-13 | PONTON INDUSTRIES INC | | 1,743.50 | | | Voiced |
| 341753 | | 19-AUG-13 | PRAXAIR DISTRIBUTION INC | | 1,330.81 | | | Voiced |
| 341754 | | 19-AUG-13 | PROPERTIES SL & C | | 687.62 | | | Voiced |
| 341755 | | 19-AUG-13 | PRUDENTIAL OVERALL SUPPLY | | 214.44 | | | Voiced |
| 341756 | | 19-AUG-13 | PSIP SN ARMSTRONG LLC | | 257.30 | | | Voiced |
| 341757 | | 19-AUG-13 | PSOMAS | | 7,178.61 | | | Voiced |
| 341758 | | 19-AUG-13 | PYRAMID WIRE AND CABLE | | 2,662.80 | | | Voiced |
| 341759 | | 19-AUG-13 | QUINCY COMPRESSOR LLC | | 3,612.18 | | | Voiced |

| | | | | |
|--------|-----------|---|-----------|--------|
| 341760 | 19-AUG-13 | RINGCLEAR LLC | 49.44 | Voiced |
| 341761 | 19-AUG-13 | SANTA ANA BLUE PRINT | 273.54 | Voiced |
| 341762 | 19-AUG-13 | SD DEACON GENERAL CONTRACTOR | 841.03 | Voiced |
| 341763 | 19-AUG-13 | SEAL ANALYTICAL INC | 806.96 | Voiced |
| 341764 | 19-AUG-13 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | 317.07 | Voiced |
| 341765 | 19-AUG-13 | SOUTH COAST WATER CO. | 151.68 | Voiced |
| 341766 | 19-AUG-13 | SOUTH COAST WATER CO. | 40.00 | Voiced |
| 341767 | 19-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | 10,774.96 | Voiced |
| 341768 | 19-AUG-13 | SOUTHERN CALIFORNIA WATER COMMITTEE INC | 5,000.00 | Voiced |
| 341769 | 19-AUG-13 | STANTEC CONSULTING SERVICES INC. | 4,182.69 | Voiced |
| 341770 | 19-AUG-13 | SUN ENGINEERING SERVICES, INC | 2,336.95 | Voiced |
| 341771 | 19-AUG-13 | SUN, BENEDICE Y | 11.12 | Voiced |
| 341772 | 19-AUG-13 | TESTAMERICA LABORATORIES, INC | 192.15 | Voiced |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 20
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341773 | | 19-AUG-13 | THE GITTELMAN GROUP | | 22,115.75 | | | Voiced |
| 341774 | | 19-AUG-13 | TROPICAL PLAZA NURSERY INC | | 11,861.31 | | | Voiced |
| 341775 | | 19-AUG-13 | TRUGREEN LANDCARE LLC | | 22,049.01 | | | Voiced |
| 341776 | | 19-AUG-13 | U S EQUIPMENT CO INC | | 377.82 | | | Voiced |
| 341777 | | 19-AUG-13 | UNITED SITE SERVICES OF CALIFORNIA INC | | 458.67 | | | Voiced |
| 341778 | | 19-AUG-13 | USA MOBILITY, INC | | 70.84 | | | Voiced |
| 341779 | | 19-AUG-13 | VERNAZZA REALTY | | 23.50 | | | Voiced |
| 341780 | | 19-AUG-13 | VULCAN MATERIALS COMPANY | | 2,738.33 | | | Voiced |
| 341781 | | 19-AUG-13 | VWR INTERNATIONAL, LLC | | 408.76 | | | Voiced |
| 341782 | | 19-AUG-13 | W.M. LYLES CO | | 787.00 | | | Voiced |
| 341783 | | 19-AUG-13 | WASTE MANAGEMENT OF ORANGE COUNTY | | 810.84 | | | Voiced |
| 341784 | | 19-AUG-13 | WIRELESS WATCHDOGS, LLC | | 928.00 | | | Voiced |
| 341785 | | 19-AUG-13 | WOODRUFF, SPRADLIN & SMART APC | | 223.29 | | | Voiced |
| 341786 | | 19-AUG-13 | WU, KEVIN | | 375.06 | | | Voiced |
| 341787 | | 19-AUG-13 | ZEE MEDICAL SERVICE CO | | 779.41 | | | Voiced |
| 341788 | | 19-AUG-13 | Henry Solis | | 235.00 | | | Negotiable |
| 341789 | | 20-AUG-13 | ADVANCED ELECTRONICS INC | | 917.18 | | | Negotiable |
| 341790 | | 20-AUG-13 | AIRGAS-WEST, INC. | | 294.71 | | | Negotiable |
| 341791 | | 20-AUG-13 | AQUA-METRIC SALES COMPANY | | 20,719.58 | | | Negotiable |
| 341792 | | 20-AUG-13 | AT&T | | 3,507.42 | | | Negotiable |
| 341793 | | 20-AUG-13 | AT&T | | 16.00 | | | Negotiable |
| 341794 | | 20-AUG-13 | BILL'S SWEEPING SERVICE INC | | 460.00 | | | Negotiable |
| 341795 | | 20-AUG-13 | CALIFORNIA BARRICADE INC | | 567.50 | | | Negotiable |
| 341796 | | 20-AUG-13 | CANON BUSINESS SOLUTIONS INC | | 24.73 | | | Negotiable |
| 341797 | | 20-AUG-13 | CAPTIVE AUDIENCE MARKETING INC. | | 112.32 | | | Negotiable |
| 341798 | | 20-AUG-13 | CHARLES P CROWLEY COMPANY INC | | 4,149.52 | | | Negotiable |
| 341799 | | 20-AUG-13 | CITY OF TUSTIN | | 863.86 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 21
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|---------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |

| | | | | |
|--------|-----------|---|-----------|------------|
| 341800 | 20-AUG-13 | COUNTY OF ORANGE | 17,153.00 | Negotiable |
| 341801 | 20-AUG-13 | CR & R INCORPORATED | 12.30 | Negotiable |
| 341802 | 20-AUG-13 | CREDENTIAL CHECK CORPORATION | 639.36 | Negotiable |
| 341803 | 20-AUG-13 | DATA CLEAN CORPORATION | 1,026.50 | Negotiable |
| 341804 | 20-AUG-13 | DATASITE INC | 622.00 | Negotiable |
| 341805 | 20-AUG-13 | DCSE INC | 5,028.75 | Negotiable |
| 341806 | 20-AUG-13 | DEE JASPAR & ASSOCIATES, INC. | 4,802.65 | Negotiable |
| 341807 | 20-AUG-13 | DEPARTMENT OF CONSUMER AFFAIRS | 115.00 | Negotiable |
| 341808 | 20-AUG-13 | EI&C ENGINEERING INC | 16,840.00 | Negotiable |
| 341809 | 20-AUG-13 | EMPLOYEE BENEFIT SPECIALIST, INC | 655.00 | Negotiable |
| 341810 | 20-AUG-13 | ENDRESS AND HAUSER INC | 5,658.59 | Negotiable |
| 341811 | 20-AUG-13 | ENVIRONMENTAL EQUIPMENT SUPPLY, INC | 852.55 | Negotiable |
| 341812 | 20-AUG-13 | EXPRESSAIR | 156.00 | Negotiable |
| 341813 | 20-AUG-13 | FARRELL & ASSOCIATES | 135.38 | Negotiable |
| 341814 | 20-AUG-13 | FEDEX | 303.40 | Negotiable |
| 341815 | 20-AUG-13 | FERGUSON, DAVID | 4,348.72 | Negotiable |
| 341816 | 20-AUG-13 | FIRST CHOICE SERVICES | 1,054.13 | Negotiable |
| 341817 | 20-AUG-13 | FISERV | 12,320.48 | Negotiable |
| 341818 | 20-AUG-13 | FISHER SCIENTIFIC COMPANY LLC | 3,685.98 | Negotiable |
| 341819 | 20-AUG-13 | FIVE POINT PARTNERS LLC | 56,350.49 | Negotiable |
| 341820 | 20-AUG-13 | FLEET SOLUTIONS LLC | 4,041.90 | Negotiable |
| 341821 | 20-AUG-13 | FOX RACING INC | 713.83 | Negotiable |
| 341822 | 20-AUG-13 | FRONTLINE MANAGEMENT INC | 360.60 | Negotiable |
| 341823 | 20-AUG-13 | FS BRAINARD & CO | 7,360.00 | Negotiable |
| 341824 | 20-AUG-13 | GANAHL LUMBER CO. | 6.47 | Negotiable |
| 341825 | 20-AUG-13 | GARZA INDUSTRIES, INC | 1,381.97 | Negotiable |
| 341826 | 20-AUG-13 | GCI CONSTRUCTION, INC. | 32,038.75 | Negotiable |
| 341827 | 20-AUG-13 | GEMS SENSORS, INC. | 1,559.31 | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 22
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341828 | | 20-AUG-13 | GENERAL ELECTRIC COMPANY | | 9,815.04 | | | Negotiable |
| 341829 | | 20-AUG-13 | GEORGE YARDLEY CO INC | | 551.23 | | | Negotiable |
| 341830 | | 20-AUG-13 | GEOSYNTEC CONSULTANTS INC | | 856.50 | | | Negotiable |
| 341831 | | 20-AUG-13 | GOOGLE INC. | | 414.96 | | | Negotiable |
| 341832 | | 20-AUG-13 | GRAINGER | | 6,159.14 | | | Negotiable |
| 341833 | | 20-AUG-13 | HAAKER EQUIPMENT COMPANY | | 321.40 | | | Negotiable |
| 341834 | | 20-AUG-13 | HACH COMPANY | | 1,653.16 | | | Negotiable |
| 341835 | | 20-AUG-13 | HADRONEX INC | | 9,667.00 | | | Negotiable |
| 341836 | | 20-AUG-13 | HAGEMEYER NORTH AMERICA INC | | 304.00 | | | Negotiable |
| 341837 | | 20-AUG-13 | HARRINGTON INDUSTRIAL PLASTICS LLC | | 3,030.09 | | | Negotiable |
| 341838 | | 20-AUG-13 | HELP/SYSTEMS-IL, LLC | | 2,435.00 | | | Negotiable |
| 341839 | | 20-AUG-13 | HERMAN WEISSKER INC | | 671.18 | | | Negotiable |
| 341840 | | 20-AUG-13 | HILL BROTHERS CHEMICAL COMPANY | | 29,858.80 | | | Negotiable |
| 341841 | | 20-AUG-13 | HOME DEPOT USA INC | | 803.18 | | | Negotiable |
| 341842 | | 20-AUG-13 | IBM CORPORATION | | 215.00 | | | Negotiable |
| 341843 | | 20-AUG-13 | INDUSTRIAL ELECTRIC MACHINERY LLC | | 8,741.52 | | | Negotiable |
| 341844 | | 20-AUG-13 | INNOVYZE | | 8,000.00 | | | Negotiable |
| 341845 | | 20-AUG-13 | IQM2 INC. | | 850.00 | | | Negotiable |
| 341846 | | 20-AUG-13 | IRVINE PACIFIC, LP | | 102.57 | | | Negotiable |
| 341847 | | 20-AUG-13 | IRVINE PIPE & SUPPLY INC | | 490.37 | | | Negotiable |
| 341848 | | 20-AUG-13 | JIMNI SYSTEMS INC | | 730.00 | | | Negotiable |
| 341849 | | 20-AUG-13 | JOHN G. ALEVIZOS D.O. INC. | | 250.00 | | | Negotiable |
| 341850 | | 20-AUG-13 | KONECRANES INC | | 1,807.00 | | | Negotiable |
| 341851 | | 20-AUG-13 | LAGUNA TOOL | | 1,504.60 | | | Negotiable |

| | | | | | | |
|--------|-----------|---|--|-----------|--|------------|
| 341852 | 20-AUG-13 | LAUREL HILL GIS, INC | | 1,500.00 | | Negotiable |
| 341853 | 20-AUG-13 | LCS TECHNOLOGIES, INC. | | 12,375.00 | | Negotiable |
| 341854 | 20-AUG-13 | LEE & RO, INC. | | 42,166.83 | | Negotiable |
| 341855 | 20-AUG-13 | LILLESTRAND LEADERSHIP CONSULTING, INC. | | 864.91 | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 23
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341856 | | 20-AUG-13 | MAG SYSTEMS, INC. | | 596.40 | | | Negotiable |
| 341857 | | 20-AUG-13 | MAILFINANCE INC | | 9,931.08 | | | Negotiable |
| 341858 | | 20-AUG-13 | MARKET-THINK LLC | | 3,900.00 | | | Negotiable |
| 341859 | | 20-AUG-13 | MC MASTER CARR SUPPLY CO | | 38.52 | | | Negotiable |
| 341860 | | 20-AUG-13 | MCCROMETER, INC. | | 122.37 | | | Negotiable |
| 341861 | | 20-AUG-13 | MISSION COMMUNICATIONS LLC | | 5,002.61 | | | Negotiable |
| 341862 | | 20-AUG-13 | MOBILE MODULAR MANAGEMENT CORPORATION | | 1,111.32 | | | Negotiable |
| 341863 | | 20-AUG-13 | MOUSER ELECTRONICS, INC. | | 105.20 | | | Negotiable |
| 341864 | | 20-AUG-13 | MUTUAL PROPANE | | 18.00 | | | Negotiable |
| 341865 | | 20-AUG-13 | NATIONAL READY MIXED CONCRETE CO | | 1,274.84 | | | Negotiable |
| 341866 | | 20-AUG-13 | NATURES IMAGE INC | | 852.00 | | | Negotiable |
| 341867 | | 20-AUG-13 | NEPTUNE TECHNOLOGY GROUP, INC. | | 48,405.60 | | | Negotiable |
| 341868 | | 20-AUG-13 | NEW PIG CORPORATION | | 386.60 | | | Negotiable |
| 341869 | | 20-AUG-13 | NOVACOAST INC | | 862.50 | | | Negotiable |
| 341870 | | 20-AUG-13 | OCWA | | 30.00 | | | Negotiable |
| 341871 | | 20-AUG-13 | OLIN CORPORATION | | 8,193.77 | | | Negotiable |
| 341872 | | 20-AUG-13 | ONESOURCE DISTRIBUTORS LLC | | 2,367.96 | | | Negotiable |
| 341873 | | 20-AUG-13 | ORANGE COUNTY FIRE AUTHORITY | | 330.00 | | | Negotiable |
| 341874 | | 20-AUG-13 | ORANGE COUNTY TREASURER | | 51.50 | | | Negotiable |
| 341875 | | 20-AUG-13 | ORANGE COUNTY TREASURER | | 264.55 | | | Negotiable |
| 341876 | | 20-AUG-13 | OUTSOURCE TECHNICAL LLC | | 25,469.00 | | | Negotiable |
| 341877 | | 20-AUG-13 | PACIFIC RESOURCE RECOVERY | | 1,274.80 | | | Negotiable |
| 341878 | | 20-AUG-13 | PEARPOINT | | 8,035.23 | | | Negotiable |
| 341879 | | 20-AUG-13 | PERKINELMER HEALTH SCIENCES INC | | 78.80 | | | Negotiable |
| 341880 | | 20-AUG-13 | PINNACLE TOWERS LLC | | 592.11 | | | Negotiable |
| 341881 | | 20-AUG-13 | PONTON INDUSTRIES INC | | 1,743.50 | | | Negotiable |
| 341882 | | 20-AUG-13 | PRAXAIR DISTRIBUTION INC | | 1,330.81 | | | Negotiable |
| 341883 | | 20-AUG-13 | PROPERTIES SL & C | | 687.62 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 24
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341884 | | 20-AUG-13 | PRUDENTIAL OVERALL SUPPLY | | 214.44 | | | Negotiable |
| 341885 | | 20-AUG-13 | PSB INTEGRATED MARKETING | | 150.00 | | | Negotiable |
| 341886 | | 20-AUG-13 | PSIP SN ARMSTRONG LLC | | 257.30 | | | Negotiable |
| 341887 | | 20-AUG-13 | PSOMAS | | 7,178.61 | | | Negotiable |
| 341888 | | 20-AUG-13 | PYRAMID WIRE AND CABLE | | 2,662.80 | | | Negotiable |
| 341889 | | 20-AUG-13 | QUICKEL PAVING INC | | 2,795.00 | | | Negotiable |
| 341890 | | 20-AUG-13 | QUINCY COMPRESSOR LLC | | 3,612.18 | | | Negotiable |
| 341891 | | 20-AUG-13 | R & R INDUSTRIAL SERVICES, INC. | | 943.90 | | | Negotiable |
| 341892 | | 20-AUG-13 | RINGCLEAR LLC | | 49.44 | | | Negotiable |
| 341893 | | 20-AUG-13 | SANTA ANA BLUE PRINT | | 273.54 | | | Negotiable |
| 341894 | | 20-AUG-13 | SD DEACON GENERAL CONTRACTOR | | 841.03 | | | Negotiable |

| | | | | | |
|--------|-----------|---|--|------------|------------|
| 341895 | 20-AUG-13 | SEAL ANALYTICAL INC | | 806.96 | Negotiable |
| 341896 | 20-AUG-13 | SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT | | 2,056.83 | Negotiable |
| 341897 | 20-AUG-13 | SOUTH COAST WATER CO. | | 40.00 | Negotiable |
| 341898 | 20-AUG-13 | SOUTH COAST WATER CO. | | 151.68 | Negotiable |
| 341899 | 20-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 244,894.83 | Negotiable |
| 341900 | 20-AUG-13 | SOUTHERN CALIFORNIA WATER COMMITTEE INC | | 5,000.00 | Negotiable |
| 341901 | 20-AUG-13 | SOUTHERN COUNTIES LUBRICANTS LLC | | 2,876.24 | Negotiable |
| 341902 | 20-AUG-13 | STANTEC CONSULTING SERVICES INC. | | 4,182.69 | Negotiable |
| 341903 | 20-AUG-13 | SUN ENGINEERING SERVICES, INC | | 2,336.95 | Negotiable |
| 341904 | 20-AUG-13 | SUN, BENEDICE Y | | 11.12 | Negotiable |
| 341905 | 20-AUG-13 | TEKDRAULICS | | 9,492.57 | Negotiable |
| 341906 | 20-AUG-13 | TESTAMERICA LABORATORIES, INC | | 192.15 | Negotiable |
| 341907 | 20-AUG-13 | THE GAS COMPANY | | 4,887.07 | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 25
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341908 | | 20-AUG-13 | THE GITTELMAN GROUP | | 22,115.75 | | | Negotiable |
| 341909 | | 20-AUG-13 | TIC-SPECTRUM OFFICE | | 76.59 | | | Negotiable |
| 341910 | | 20-AUG-13 | TRIPAC MARKETING INC | | 110.74 | | | Negotiable |
| 341911 | | 20-AUG-13 | TROPICAL PLAZA NURSERY INC | | 12,471.31 | | | Negotiable |
| 341912 | | 20-AUG-13 | TRUCPARCO | | 100.01 | | | Negotiable |
| 341913 | | 20-AUG-13 | TRUGREEN LANDCARE LLC | | 22,849.01 | | | Negotiable |
| 341914 | | 20-AUG-13 | U S EQUIPMENT CO INC | | 377.82 | | | Negotiable |
| 341915 | | 20-AUG-13 | UNITED SITE SERVICES OF CALIFORNIA INC | | 458.67 | | | Negotiable |
| 341916 | | 20-AUG-13 | USA MOBILITY, INC | | 70.84 | | | Negotiable |
| 341917 | | 20-AUG-13 | VERNAZZA REALTY | | 23.50 | | | Negotiable |
| 341918 | | 20-AUG-13 | VULCAN MATERIALS COMPANY | | 2,738.33 | | | Negotiable |
| 341919 | | 20-AUG-13 | VWR INTERNATIONAL, LLC | | 408.76 | | | Negotiable |
| 341920 | | 20-AUG-13 | W.M. LYLES CO | | 787.00 | | | Negotiable |
| 341921 | | 20-AUG-13 | WASTE MANAGEMENT OF ORANGE COUNTY | | 810.84 | | | Negotiable |
| 341922 | | 20-AUG-13 | WAXIE'S ENTERPRISES, INC | | 170.34 | | | Negotiable |
| 341923 | | 20-AUG-13 | WECK LABORATORIES INC | | 565.00 | | | Negotiable |
| 341924 | | 20-AUG-13 | WEST COAST SAFETY SUPPLY INC | | 708.10 | | | Negotiable |
| 341925 | | 20-AUG-13 | WIRELESS WATCHDOGS, LLC | | 928.00 | | | Negotiable |
| 341926 | | 20-AUG-13 | WOODRUFF, SPRADLIN & SMART APC | | 223.29 | | | Negotiable |
| 341927 | | 20-AUG-13 | WU, KEVIN | | 375.06 | | | Negotiable |
| 341928 | | 20-AUG-13 | ZEE MEDICAL SERVICE CO | | 779.41 | | | Negotiable |
| 341929 | | 22-AUG-13 | 1000BULBS.COM | | 179.12 | | | Negotiable |
| 341930 | | 22-AUG-13 | PAF INTERNATIONAL | | 1,840.39 | | | Negotiable |
| 341931 | | 22-AUG-13 | AIRGAS-WEST, INC. | | 30.01 | | | Negotiable |
| 341932 | | 22-AUG-13 | ALLIED ELECTRONICS INC | | 66.20 | | | Negotiable |
| 341933 | | 22-AUG-13 | ALPHA TRAFFIC SERVICES, INC. | | 520.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 26
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|------------------------------|------|----------------|--------------|----------------|--------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341934 | | 22-AUG-13 | APPLE STORE/EDWARD CORRAL | | 2,421.04 | | | Voided |

| | | | | | | |
|--------|-----------|-----------------------------------|--|--------|--|------------|
| 341985 | 22-AUG-13 | OLSON HAGEL FISHBURN, LLP | | 479.00 | | Negotiable |
| 341986 | 22-AUG-13 | ORANGE COUNTY FIRE PROTECTION | | 548.40 | | Negotiable |
| 341987 | 22-AUG-13 | ORANGE COUNTY SHERIFF'S OFFICE | | 858.54 | | Negotiable |

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 28
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|---|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 341988 | | 22-AUG-13 | ORANGE COUNTY TREASURER | | 243.00 | | | Negotiable |
| 341989 | | 22-AUG-13 | ORANGE COUNTY VECTOR CONTROL DISTRICT | | 3,260.15 | | | Negotiable |
| 341990 | | 22-AUG-13 | PACIFIC COAST BOLT CORP | | 3,801.02 | | | Negotiable |
| 341991 | | 22-AUG-13 | PAULUS ENGINEERING INC | | 327,217.10 | | | Negotiable |
| 341992 | | 22-AUG-13 | PAYNE & FEARS LLP | | 156.00 | | | Negotiable |
| 341993 | | 22-AUG-13 | PERS LONG TERM CARE | | 852.57 | | | Negotiable |
| 341994 | | 22-AUG-13 | PTI SAND & GRAVEL INC | | 1,304.64 | | | Negotiable |
| 341995 | | 22-AUG-13 | PYRAMID WIRE AND CABLE | | 2,662.80 | | | Negotiable |
| 341996 | | 22-AUG-13 | QUALITY ENVIRONMENTAL CONTAINERS | | 3,431.53 | | | Negotiable |
| 341997 | | 22-AUG-13 | RBF CONSULTING | | 295.50 | | | Negotiable |
| 341998 | | 22-AUG-13 | RHODIA INC | | 9,310.62 | | | Negotiable |
| 341999 | | 22-AUG-13 | ROSEDALE - RIO BRAVO | | 28,199.36 | | | Negotiable |
| 342000 | | 22-AUG-13 | SHAMROCK SUPPLY CO INC | | 1,516.57 | | | Negotiable |
| 342001 | | 22-AUG-13 | SOUTH WEST PUMP & DRILLING INC | | 10,906.00 | | | Negotiable |
| 342002 | | 22-AUG-13 | SOUTHERN CALIFORNIA EDISON COMPANY | | 172,337.86 | | | Negotiable |
| 342003 | | 22-AUG-13 | STANTEC CONSULTING SERVICES INC. | | 6,405.50 | | | Negotiable |
| 342004 | | 22-AUG-13 | TEKDRUALICS | | 42,628.68 | | | Negotiable |
| 342005 | | 22-AUG-13 | TESTAMERICA LABORATORIES, INC | | 594.30 | | | Negotiable |
| 342006 | | 22-AUG-13 | TETRA TECH, INC | | 9,037.50 | | | Negotiable |
| 342007 | | 22-AUG-13 | TRANSCAT, INC | | 144.99 | | | Negotiable |
| 342008 | | 22-AUG-13 | TROPICAL PLAZA NURSERY INC | | 22,358.30 | | | Negotiable |
| 342009 | | 22-AUG-13 | TUTTLE-CLICK FORD LINCOLN | | 149,254.62 | | | Negotiable |
| 342010 | | 22-AUG-13 | ULTRA SCIENTIFIC | | 502.10 | | | Negotiable |
| 342011 | | 22-AUG-13 | UNITED PARCEL SERVICE INC | | 29.84 | | | Negotiable |

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 Bank Account Currency: USD (US Dollar) Account: Checking AP and PR Page: 29
 Payment Type: All Payment Currency: USD (US Dollar) Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342012 | | 22-AUG-13 | UNITED SITE SERVICES OF CALIFORNIA INC | | 139.26 | | | Negotiable |
| 342013 | | 22-AUG-13 | US PEROXIDE LLC | | 6,181.85 | | | Negotiable |
| 342014 | | 22-AUG-13 | VERIZON CALIFORNIA INC | | 185.17 | | | Negotiable |
| 342015 | | 22-AUG-13 | VWR INTERNATIONAL, LLC | | 652.09 | | | Negotiable |
| 342016 | | 22-AUG-13 | WALTERS WHOLESALE ELECTRIC | | 6,504.30 | | | Negotiable |
| 342017 | | 22-AUG-13 | WATERLINE TECHNOLOGIES INC | | 2,840.00 | | | Negotiable |
| 342018 | | 22-AUG-13 | WECK LABORATORIES INC | | 1,330.00 | | | Negotiable |
| 342019 | | 22-AUG-13 | WELLS SUPPLY COMPANY | | 422.17 | | | Negotiable |
| 342020 | | 22-AUG-13 | William Hall | | 1,263.60 | | | Negotiable |
| 342021 | | 22-AUG-13 | ZEBRON CONTRACTING INC | | 51,380.00 | | | Negotiable |
| 342022 | | 22-AUG-13 | David Mazzarella | | 116.00 | | | Negotiable |
| 342023 | | 22-AUG-13 | Jack Justice | | 82.00 | | | Negotiable |
| 342024 | | 22-AUG-13 | Jeremy Hankla | | 386.00 | | | Negotiable |
| 342025 | | 22-AUG-13 | Pio Reynoso | | 87.00 | | | Negotiable |

| | | | | |
|--------|-----------|--------------------------------|-----------|------------|
| 342026 | 23-AUG-13 | ADVANCED ELECTRONICS INC | 92.38 | Negotiable |
| 342027 | 23-AUG-13 | ANDERSONPENNA PARTNERS, INC | 14,455.00 | Negotiable |
| 342028 | 23-AUG-13 | AT&T | 16.73 | Negotiable |
| 342029 | 23-AUG-13 | AT&T | 48.09 | Negotiable |
| 342030 | 23-AUG-13 | ATHENS SERVICES | 6,911.39 | Negotiable |
| 342031 | 23-AUG-13 | C WELLS PIPELINE MATERIALS INC | 20,781.36 | Negotiable |
| 342032 | 23-AUG-13 | CALIFORNIA BARRICADE INC | 785.00 | Negotiable |
| 342033 | 23-AUG-13 | CAMERON WELDING SUPPLY | 335.61 | Negotiable |
| 342034 | 23-AUG-13 | CDW GOVERNMENT LLC | 4,445.31 | Negotiable |
| 342035 | 23-AUG-13 | CHARLES P CROWLEY COMPANY INC | 8,748.36 | Negotiable |
| 342036 | 23-AUG-13 | CITY OF NEWPORT BEACH | 886.91 | Negotiable |
| 342037 | 23-AUG-13 | COUNTY OF ORANGE | 3,231.00 | Negotiable |
| 342038 | 23-AUG-13 | COX COMMUNICATIONS | 128.08 | Negotiable |
| 342039 | 23-AUG-13 | DALEY & HEFT LLP | 9,678.38 | Negotiable |
| 342040 | 23-AUG-13 | ENDRESS AND HAUSER INC | 7,542.64 | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 30
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342041 | | 23-AUG-13 | ENVIRONMENTAL EXPRESS INC | | 888.60 | | | Negotiable |
| 342042 | | 23-AUG-13 | EXPRESSAIR | | 72.00 | | | Negotiable |
| 342043 | | 23-AUG-13 | FEDEX | | 304.49 | | | Negotiable |
| 342044 | | 23-AUG-13 | FISERV | | 290.75 | | | Negotiable |
| 342045 | | 23-AUG-13 | FOUNTAIN VALLEY PAINTS | | 459.00 | | | Negotiable |
| 342046 | | 23-AUG-13 | GRAINGER | | 1,428.20 | | | Negotiable |
| 342047 | | 23-AUG-13 | HAAKER EQUIPMENT COMPANY | | 590.60 | | | Negotiable |
| 342048 | | 23-AUG-13 | HACH COMPANY | | 4,197.53 | | | Negotiable |
| 342049 | | 23-AUG-13 | HEALTH SCIENCE ASSOCIATES, INC. | | 841.95 | | | Negotiable |
| 342050 | | 23-AUG-13 | HILL BROTHERS CHEMICAL COMPANY | | 8,369.80 | | | Negotiable |
| 342051 | | 23-AUG-13 | IRON MOUNTAIN INFORMATION MANAGEMENT INC | | 1,740.06 | | | Negotiable |
| 342052 | | 23-AUG-13 | KOELLER NEBEKER CARLSON & HALUCK, LLP | | 2,550.54 | | | Negotiable |
| 342053 | | 23-AUG-13 | LENOVO UNITED STATES INC | | 2,701.38 | | | Negotiable |
| 342054 | | 23-AUG-13 | LEWIS BRISBOIS BISGAARD AND SMITH LLP | | 2,948.05 | | | Negotiable |
| 342055 | | 23-AUG-13 | LINDE ELECTRONICS & SPECIALTY | | 2,728.50 | | | Negotiable |
| 342056 | | 23-AUG-13 | MUTUAL PROPANE | | 18.00 | | | Negotiable |
| 342057 | | 23-AUG-13 | ONESOURCE DISTRIBUTORS LLC | | 1,827.65 | | | Negotiable |
| 342058 | | 23-AUG-13 | PRAXAIR DISTRIBUTION INC | | 398.55 | | | Negotiable |
| 342059 | | 23-AUG-13 | RAM AIR ENGINEERING INC | | 1,395.00 | | | Negotiable |
| 342060 | | 23-AUG-13 | SOLUTIONS 4 INDUSTRY | | 873.54 | | | Negotiable |
| 342061 | | 23-AUG-13 | SPATIAL WAVE, INC. | | 4,500.00 | | | Negotiable |
| 342062 | | 23-AUG-13 | TESTAMERICA LABORATORIES, INC | | 52.50 | | | Negotiable |
| 342063 | | 23-AUG-13 | THE HELLAN STRAINER COMPANY | | 147,154.34 | | | Negotiable |
| 342064 | | 23-AUG-13 | TROPICAL PLAZA NURSERY INC | | 132.76 | | | Negotiable |
| 342065 | | 23-AUG-13 | US PEROXIDE LLC | | 4,250.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 31
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342066 | | 23-AUG-13 | VERIZON CALIFORNIA INC | | 197.93 | | | Negotiable |
| 342067 | | 23-AUG-13 | WAXIE'S ENTERPRISES, INC | | 428.91 | | | Negotiable |
| 342068 | | 23-AUG-13 | WECK LABORATORIES | | 279.00 | | | Negotiable |

| | | | | |
|--------|-----------|--|-----------|------------|
| 342069 | 23-AUG-13 | INC YORKE ENGINEERING LLC | 1,240.94 | Negotiable |
| 342070 | 23-AUG-13 | AST CORPORATION | 35,000.00 | Negotiable |
| 342071 | 29-AUG-13 | ACCURATE MEASUREMENT SYSTEMS INC | 313.40 | Negotiable |
| 342072 | 29-AUG-13 | AFLAC | 6,014.70 | Negotiable |
| 342073 | 29-AUG-13 | AGGARWAL, NITU | 35.68 | Negotiable |
| 342074 | 29-AUG-13 | AHERN, JENNIFER | 32.89 | Negotiable |
| 342075 | 29-AUG-13 | AIRGAS-WEST, INC. | 4,548.88 | Negotiable |
| 342076 | 29-AUG-13 | AKM CONSULTING ENGINEERS, INC. | 13,370.00 | Negotiable |
| 342077 | 29-AUG-13 | ALL AMERICAN SEWER TOOLS | 819.44 | Negotiable |
| 342078 | 29-AUG-13 | APKE, SARAH | 16.54 | Negotiable |
| 342079 | 29-AUG-13 | ARCADIS U.S., INC. | 28,701.33 | Negotiable |
| 342080 | 29-AUG-13 | AT&T | 93.23 | Negotiable |
| 342081 | 29-AUG-13 | AT&T | 23,205.00 | Negotiable |
| 342082 | 29-AUG-13 | AVISTA TECHNOLOGIES, INC | 3,046.10 | Negotiable |
| 342083 | 29-AUG-13 | BILL'S SWEEPING SERVICE INC | 690.00 | Negotiable |
| 342084 | 29-AUG-13 | BK FOUNTAIN WORKS | 698.44 | Negotiable |
| 342085 | 29-AUG-13 | BORCHARD SURVEYING & MAPPING, INC. | 11,552.50 | Negotiable |
| 342086 | 29-AUG-13 | C WELLS PIPELINE MATERIALS INC | 14,319.72 | Negotiable |
| 342087 | 29-AUG-13 | CALIFORNIA BARRICADE INC | 3,665.00 | Negotiable |
| 342088 | 29-AUG-13 | CHASTAIN, STEVE | 124.28 | Negotiable |
| 342089 | 29-AUG-13 | CHEYENNE MFG INC | 2,110.00 | Negotiable |
| 342090 | 29-AUG-13 | CITY OF LAKE FOREST | 31,304.00 | Negotiable |
| 342091 | 29-AUG-13 | COASTAL IGNITION & CONTROLS, INC | 7,873.82 | Negotiable |
| 342092 | 29-AUG-13 | COLONIAL LIFE & ACCIDENT INSURANCE CO. | 1,554.46 | Negotiable |
| 342093 | 29-AUG-13 | COMMERCIAL CLEANING SYSTEMS | 11,128.99 | Negotiable |

IRWD Ledger
 BANK: Bank of America N.A. Branch : Los Angeles
 Bank Account Currency: USD (US Dollar)
 Payment Type: All

Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 Account: Checking AP and PR Page: 32
 Payment Currency: USD (US Dollar)
 Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342094 | | 29-AUG-13 | CONDITION MONITORING SERVICES INC | | 4,703.64 | | | Negotiable |
| 342095 | | 29-AUG-13 | ONEYBEARE INC | | 17,345.00 | | | Negotiable |
| 342096 | | 29-AUG-13 | CORE-ROSION PRODUCTS | | 18,740.12 | | | Negotiable |
| 342097 | | 29-AUG-13 | COX COMMUNICATIONS | | 100.35 | | | Negotiable |
| 342098 | | 29-AUG-13 | DENG, SHAOJAIAN | | 85.77 | | | Negotiable |
| 342099 | | 29-AUG-13 | DENTICE, LAWRENCE | | 12.85 | | | Negotiable |
| 342100 | | 29-AUG-13 | DIRCKS, KANDI | | 316.34 | | | Negotiable |
| 342101 | | 29-AUG-13 | Edward Corral | | 2,161.72 | | | Negotiable |
| 342102 | | 29-AUG-13 | EMERGENCY POWER CONTROLS INC | | 2,400.00 | | | Negotiable |
| 342103 | | 29-AUG-13 | ENDRESS AND HAUSER INC | | 1,802.97 | | | Negotiable |
| 342104 | | 29-AUG-13 | ENVIRONMENTAL RESOURCE ASSOCIATES | | 439.24 | | | Negotiable |
| 342105 | | 29-AUG-13 | FAMILIES FORWARD | | 97.05 | | | Negotiable |
| 342106 | | 29-AUG-13 | FARRELL & ASSOCIATES | | 1,121.20 | | | Negotiable |
| 342107 | | 29-AUG-13 | FEDEX | | 318.93 | | | Negotiable |
| 342108 | | 29-AUG-13 | FIRST CHOICE SERVICES | | 201.83 | | | Negotiable |
| 342109 | | 29-AUG-13 | FISHER SCIENTIFIC COMPANY LLC | | 576.75 | | | Negotiable |
| 342110 | | 29-AUG-13 | FM & SONS INC | | 83.85 | | | Negotiable |
| 342111 | | 29-AUG-13 | FS BRAINARD & CO | | 7,140.00 | | | Negotiable |
| 342112 | | 29-AUG-13 | GANAHL LUMBER CO. | | 5,638.68 | | | Negotiable |
| 342113 | | 29-AUG-13 | GOLDEN STATE LABOR COMPLIANCE LLC | | 1,671.00 | | | Negotiable |
| 342114 | | 29-AUG-13 | GRAINGER | | 3,007.73 | | | Negotiable |
| 342115 | | 29-AUG-13 | GRAYBAR ELECTRIC COMPANY | | 2,428.16 | | | Negotiable |
| 342116 | | 29-AUG-13 | HACH COMPANY | | 1,821.96 | | | Negotiable |
| 342117 | | 29-AUG-13 | HALCYON ELECTRIC INC | | 23,535.00 | | | Negotiable |
| 342118 | | 29-AUG-13 | HARRINGTON INDUSTRIAL PLASTICS LLC | | 7,051.00 | | | Negotiable |
| 342119 | | 29-AUG-13 | HARTFORD LIFE AND ACCIDENT INSURANCE COMPANY | | 153.63 | | | Negotiable |

342120 29-AUG-13 HDR ENGINEERING 6,507.64 Negotiable
 INC
 342121 29-AUG-13 HEATH, SARAH 43.22 Negotiable
 IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 33
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|--|--------------|-----------|-------------------------------------|------|-----------------------------|------------------------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342122 | | 29-AUG-13 | HILL BROTHERS | | 7,659.47 | | | Negotiable |
| | | | CHEMICAL COMPANY | | | | | |
| 342123 | | 29-AUG-13 | HOME DEPOT USA INC | | 254.80 | | | Negotiable |
| 342124 | | 29-AUG-13 | HUME, JULIA | | 25.89 | | | Negotiable |
| 342125 | | 29-AUG-13 | HYDRO-SCAPE | | 119.19 | | | Negotiable |
| | | | PRODUCTS INC | | | | | |
| 342126 | | 29-AUG-13 | ICE QUBE, INC. | | 789.32 | | | Negotiable |
| 342127 | | 29-AUG-13 | IRVINE PIPE & | | 2,086.64 | | | Negotiable |
| | | | SUPPLY INC | | | | | |
| 342128 | | 29-AUG-13 | JCI JONES | | 6,127.11 | | | Negotiable |
| | | | CHEMICALS INC | | | | | |
| 342129 | | 29-AUG-13 | JENSEN PRECAST | | 3,415.00 | | | Negotiable |
| 342130 | | 29-AUG-13 | KIMBALL MIDWEST | | 3,935.23 | | | Negotiable |
| 342131 | | 29-AUG-13 | LAGUNA CANYON | | 392.75 | | | Negotiable |
| | | | HOUSING ASSN | | | | | |
| 342132 | | 29-AUG-13 | LBA REALTY FUND II | | 506.91 | | | Negotiable |
| | | | WBP LLC | | | | | |
| 342133 | | 29-AUG-13 | LILLESTRAND | | 2,826.00 | | | Negotiable |
| | | | LEADERSHIP | | | | | |
| | | | CONSULTING, INC. | | | | | |
| 342134 | | 29-AUG-13 | LTM, EUN | | 55.91 | | | Negotiable |
| 342135 | | 29-AUG-13 | MARVIN GARDENS LLC | | 2,593.70 | | | Negotiable |
| 342136 | | 29-AUG-13 | MC MASTER CARR | | 2,449.25 | | | Negotiable |
| | | | SUPPLY CO | | | | | |
| 342137 | | 29-AUG-13 | MCDONALD, JENNIFER | | 35.22 | | | Negotiable |
| | | | L | | | | | |
| 342138 | | 29-AUG-13 | MEDTRONIC | | 158.68 | | | Negotiable |
| 342139 | | 29-AUG-13 | MERCER, SHAIN | | 17.00 | | | Negotiable |
| 342140 | | 29-AUG-13 | MESA CONTRACTING | | 703.20 | | | Negotiable |
| | | | CORPORATION | | | | | |
| 342141 | | 29-AUG-13 | MORGAN COMPANY | | 32.02 | | | Negotiable |
| 342142 | | 29-AUG-13 | NASSAR, SANDRA | | 1,241.46 | | | Negotiable |
| 342143 | | 29-AUG-13 | NATIONAL READY | | 3,086.64 | | | Negotiable |
| | | | MIXED CONCRETE CO | | | | | |
| 342144 | | 29-AUG-13 | NEWPORT WINDOW | | 2,314.00 | | | Negotiable |
| | | | MAINTENANCE INC | | | | | |
| 342145 | | 29-AUG-13 | NING, LI | | 15.00 | | | Negotiable |
| 342146 | | 29-AUG-13 | NMG GEOTECHNICAL | | 44,179.00 | | | Negotiable |
| | | | INC | | | | | |
| 342147 | | 29-AUG-13 | NYQUIST, TRAVIS | | 21.93 | | | Negotiable |
| 342148 | | 29-AUG-13 | OCEAN BLUE | | 10,018.83 | | | Negotiable |
| | | | ENVIRONMENTAL | | | | | |
| | | | SERVICES INC | | | | | |
| 342149 | | 29-AUG-13 | OKAMOTO, ERIN | | 24.07 | | | Negotiable |
| 342150 | | 29-AUG-13 | OLIN CORPORATION | | 27,530.55 | | | Negotiable |
| IRWD Ledger | | | | | | | | |
| Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24 | | | | | | | | |
| BANK: Bank of America N.A. | | | Branch : Los Angeles | | Account: Checking AP and PR | | Page: 34 | |
| Bank Account Currency: USD (US Dollar) | | | Payment Currency: USD (US Dollar) | | | Display Supplier Address: No | | |
| Payment Type: All | | | | | | | | |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|-----------|--------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342151 | | 29-AUG-13 | ON ASSIGNMENT LAB | | 1,229.24 | | | Negotiable |
| | | | SUPPORT | | | | | |
| 342152 | | 29-AUG-13 | ORANGE COUNTY FIRE | | 1,855.00 | | | Negotiable |
| | | | PROTECTION | | | | | |
| 342153 | | 29-AUG-13 | OUTSOURCE | | 7,308.00 | | | Negotiable |
| | | | TECHNICAL LLC | | | | | |
| 342154 | | 29-AUG-13 | PACIFIC PARTS & | | 262.80 | | | Negotiable |
| | | | CONTROLS INC | | | | | |
| 342155 | | 29-AUG-13 | PACIFIC SURVEYS, | | 855.00 | | | Negotiable |
| | | | LLC | | | | | |
| 342156 | | 29-AUG-13 | PARKHOUSE TIRE INC | | 897.96 | | | Negotiable |
| 342157 | | 29-AUG-13 | PARKS, CRYSTAL | | 278.57 | | | Negotiable |
| 342158 | | 29-AUG-13 | PIRRO, JOSEPH | | 36.02 | | | Negotiable |
| 342159 | | 29-AUG-13 | PONTON INDUSTRIES | | 1,849.81 | | | Negotiable |
| | | | INC | | | | | |
| 342160 | | 29-AUG-13 | PRAXAIR | | 1,626.84 | | | Negotiable |
| | | | DISTRIBUTION INC | | | | | |
| 342161 | | 29-AUG-13 | PRE-PAID LEGAL | | 1,216.66 | | | Negotiable |
| | | | SERVICES INC | | | | | |
| 342162 | | 29-AUG-13 | PREMIER PAVING INC | | 172.48 | | | Negotiable |
| 342163 | | 29-AUG-13 | PRESCOTT, LOUISE | | 15.00 | | | Negotiable |
| 342164 | | 29-AUG-13 | PRO GROWERS INC | | 1,801.66 | | | Negotiable |
| 342165 | | 29-AUG-13 | PROCESS PUMP SALES | | 1,302.78 | | | Negotiable |
| | | | INC | | | | | |
| 342166 | | 29-AUG-13 | PRUDENTIAL OVERALL | | 3,481.13 | | | Negotiable |

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|----------------|--------------|------|--|------|----------------|--------------|----------------|------------|
| 342167 | 29-AUG-13 | | SUPPLY PSB INTEGRATED | | 4,967.07 | | | Negotiable |
| 342168 | 29-AUG-13 | | MARKETING RAM AIR | | 1,467.38 | | | Negotiable |
| 342169 | 29-AUG-13 | | ENGINEERING INC RICHARD C SLADE & ASSOCIATES | | 9,044.50 | | | Negotiable |
| 342170 | 29-AUG-13 | | RODRIGUEZ, DAVID | | 103.43 | | | Negotiable |
| 342171 | 29-AUG-13 | | SADIGH, MARYAM | | 21.82 | | | Negotiable |
| 342172 | 29-AUG-13 | | SAN DIEGO STATE UNIVERSITY | | 7.00 | | | Negotiable |
| 342173 | 29-AUG-13 | | SANTA ANA BLUE PRINT | | 2,607.42 | | | Negotiable |
| 342174 | 29-AUG-13 | | SANTA MARGARITA WATER DISTRICT | | 46,082.63 | | | Negotiable |
| 342175 | 29-AUG-13 | | SHAMROCK SUPPLY CO INC | | 1,516.17 | | | Negotiable |
| 342176 | 29-AUG-13 | | SHIMODA, LAWRENCE | | 247.95 | | | Negotiable |
| 342177 | 29-AUG-13 | | SILVERWOOD LANDSCAPE | | 646.27 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 35
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|--|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342178 | 29-AUG-13 | | SOUTHERN CALIFORNIA EDISON COMPANY | | 544,463.34 | | | Negotiable |
| 342179 | 29-AUG-13 | | STEVEN ENTERPRISES INC | | 270.71 | | | Voided |
| 342180 | 29-AUG-13 | | T AND S LARSEN MAINTENANCE | | 400.00 | | | Negotiable |
| 342181 | 29-AUG-13 | | TAKAHASHI, SHIN | | 15.06 | | | Negotiable |
| 342182 | 29-AUG-13 | | TATE, RENIA | | 60.31 | | | Negotiable |
| 342183 | 29-AUG-13 | | TESTAMERICA LABORATORIES, INC | | 52.50 | | | Negotiable |
| 342184 | 29-AUG-13 | | TETRA TECH, INC | | 10,173.42 | | | Negotiable |
| 342185 | 29-AUG-13 | | THYSSENKRUPP ELEVATOR | | 217.19 | | | Negotiable |
| 342186 | 29-AUG-13 | | TODAY REAL ESTATE | | 31.22 | | | Negotiable |
| 342187 | 29-AUG-13 | | TOXGUARD FLUID TECHNOLOGIES | | 224.28 | | | Negotiable |
| 342188 | 29-AUG-13 | | TROPICAL PLAZA NURSERY INC | | 487.57 | | | Negotiable |
| 342189 | 29-AUG-13 | | TRUGREEN LANDCARE LLC | | 18,800.00 | | | Negotiable |
| 342190 | 29-AUG-13 | | TUCKER, JENNIFER | | 10.32 | | | Negotiable |
| 342191 | 29-AUG-13 | | ULTRA SCIENTIFIC | | 309.50 | | | Negotiable |
| 342192 | 29-AUG-13 | | UNITED PARCEL SERVICE INC | | 71.71 | | | Negotiable |
| 342193 | 29-AUG-13 | | VA CONSULTING, INC | | 12,580.25 | | | Negotiable |
| 342194 | 29-AUG-13 | | VERIZON CALIFORNIA INC | | 91.20 | | | Negotiable |
| 342195 | 29-AUG-13 | | VERIZON WIRELESS SERVICES LLC | | 5,711.57 | | | Negotiable |
| 342196 | 29-AUG-13 | | VOSSLER & CO | | 1,263.63 | | | Negotiable |
| 342197 | 29-AUG-13 | | VPSI INC | | 2,610.55 | | | Negotiable |
| 342198 | 29-AUG-13 | | VULCAN MATERIALS COMPANY | | 1,387.33 | | | Negotiable |
| 342199 | 29-AUG-13 | | WATER ENVIRONMENT FEDERATION | | 228.00 | | | Negotiable |
| 342200 | 29-AUG-13 | | WAXIE'S ENTERPRISES, INC | | 148.59 | | | Negotiable |
| 342201 | 29-AUG-13 | | WECK LABORATORIES INC | | 2,050.00 | | | Negotiable |
| 342202 | 29-AUG-13 | | WENSKUNAS, PATRICIA | | 38.82 | | | Negotiable |
| 342203 | 29-AUG-13 | | WEST COAST ARBORISTS INC | | 500.00 | | | Negotiable |
| 342204 | 29-AUG-13 | | WIELAND ACOUSTICS INC | | 2,184.00 | | | Negotiable |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 36
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|-------------------------------|--------------|------|-----------------------------------|------|----------------|--------------|----------------|------------|
| Payment Document : IRWD CHECK | | | | | | | | |
| 342205 | 29-AUG-13 | | WILKENING, SAVANNAH | | 31.06 | | | Negotiable |
| 342206 | 29-AUG-13 | | WILLIAMS, E H | | 99.30 | | | Negotiable |
| 342207 | 29-AUG-13 | | WOODRUFF, SPRADLIN & SMART APC | | 51.00 | | | Negotiable |
| 342208 | 29-AUG-13 | | WORKFLOWONE | | 2,339.63 | | | Negotiable |
| 342209 | 29-AUG-13 | | WU, BINJUE | | 5.76 | | | Negotiable |

| | | | | | |
|--------|-----------|--------------------|--------|-----------|------------|
| 342210 | 29-AUG-13 | YALAMANCHILI, | | 43.50 | Negotiable |
| 342211 | 29-AUG-13 | VENKTA | | | Negotiable |
| 342212 | 29-AUG-13 | YU, SUE | | 12.37 | Negotiable |
| | | ZEBRON CONTRACTING | | 80,660.00 | Negotiable |
| | | INC | | | |
| 342213 | 29-AUG-13 | ZHANG, DONGSHI | | 13.30 | Negotiable |
| 342214 | 29-AUG-13 | IRWD-PETTY CASH | IRVINE | 708.50 | Negotiable |
| | | CUSTODIAN | | | |
| 342215 | 29-AUG-13 | Amy McNulty | | 50.95 | Negotiable |
| 342216 | 29-AUG-13 | Craig Cascelli | | 82.00 | Negotiable |
| 342217 | 29-AUG-13 | Eric Akiyoshi | | 250.75 | Negotiable |
| 342218 | 29-AUG-13 | Frederick Bertsch | | 96.98 | Negotiable |
| 342219 | 29-AUG-13 | Gina Jackson | | 73.69 | Negotiable |
| 342220 | 29-AUG-13 | Juan Guzman | | 145.80 | Negotiable |
| 342221 | 29-AUG-13 | Julie Bendzick-Sin | | 60.56 | Negotiable |
| 342222 | 29-AUG-13 | Lars Oldewage | | 125.96 | Negotiable |
| 342223 | 29-AUG-13 | Mark Gingras | | 77.00 | Negotiable |
| 342224 | 29-AUG-13 | Mitchell Robinson | | 144.95 | Negotiable |
| 342225 | 29-AUG-13 | Ricky Ruiz | | 170.00 | Negotiable |

Payment Document Subtotal: 7,220,173.64 2,117,546.35

Payment Document : IRWD Wire

| | | | | | |
|-------|-----------|--------------------|------------|------------|------------|
| 10050 | 08-AUG-13 | CALPERS | SACRAMENTO | 362,672.12 | Negotiable |
| 10051 | 21-AUG-13 | YORK INSURANCE | PAY | 3,019.01 | Negotiable |
| | | SERVICES GROUP INC | | | |
| | | - CA | | | |
| 10052 | 21-AUG-13 | YORK INSURANCE | PAY | 8,702.57 | Negotiable |
| | | SERVICES GROUP INC | | | |
| | | - CA | | | |
| 10053 | 21-AUG-13 | YORK INSURANCE | PAY | 8,147.52 | Negotiable |
| | | SERVICES GROUP INC | | | |
| | | - CA | | | |
| 10054 | 26-AUG-13 | INTERNAL REVENUE | FRESNO | 160,806.72 | Negotiable |
| | | SERVICE | | | |
| 10055 | 26-AUG-13 | FRANCHISE TAX | SACRAMENTO | 43,736.61 | Negotiable |
| | | BOARD | | | |

IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 37
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|--------------|-----------|---|----------------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 10056 | | 26-AUG-13 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 10,101.70 | | | Negotiable |
| 10057 | | 26-AUG-13 | WILLIAMS, TWYLA | PARKER | 500.17 | | | Voided |
| 10058 | | 26-AUG-13 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES | SACRAMENTO | 1,991.98 | | | Negotiable |
| 10059 | | 26-AUG-13 | ORDONEZ, CYNTHIA MARIE | DESERT HOT SPR | 500.17 | | | Negotiable |
| 10060 | | 26-AUG-13 | EMPLOYEE BENEFIT SPECIALIST, INC | PAY | 9,482.15 | | | Negotiable |
| 10061 | | 26-AUG-13 | GREAT WEST | DENVER | 87,245.44 | | | Negotiable |
| 10062 | | 26-AUG-13 | CALPERS | SACRAMENTO | 82,748.36 | | | Negotiable |
| 10063 | | 26-AUG-13 | INTERNAL REVENUE SERVICE | FRESNO | 148,260.27 | | | Negotiable |
| 10064 | | 26-AUG-13 | FRANCHISE TAX BOARD | SACRAMENTO | 40,406.41 | | | Negotiable |
| 10065 | | 26-AUG-13 | EMPLOYMENT DEVELOPMENT DEPARTMENT | W SACRAMENTO | 10,134.45 | | | Negotiable |
| 10066 | | 26-AUG-13 | ORDONEZ, CYNTHIA MARIE | DESERT HOT SPR | 500.17 | | | Negotiable |
| 10067 | | 26-AUG-13 | CALIFORNIA DEPARTMENT OF CHILD SUPPORT SERVICES | SACRAMENTO | 1,991.98 | | | Negotiable |
| 10068 | | 26-AUG-13 | EMPLOYEE BENEFIT SPECIALIST, INC | PAY | 10,084.99 | | | Negotiable |
| 10069 | | 27-AUG-13 | GREAT WEST | DENVER | 89,486.36 | | | Negotiable |
| 10070 | | 27-AUG-13 | CALPERS | SACRAMENTO | 83,156.83 | | | Negotiable |
| 10071 | | 27-AUG-13 | MUNICIPAL WATER DISTRICT OF ORANGEVALLEY COUNTY | FOUNTAIN | 1,675,108.47 | | | Negotiable |
| 10072 | | 28-AUG-13 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 2,595.70 | | | Negotiable |
| 10073 | | 28-AUG-13 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 1,730.47 | | | Negotiable |
| 10074 | | 28-AUG-13 | SUMITOMO MITSUI BANKING CORPORATON | NEW YORK | 644.66 | | | Negotiable |
| 10075 | | 28-AUG-13 | U.S. BANK NATIONAL ASSOCIATION | PAY | 2,653.42 | | | Negotiable |
| 10076 | | 28-AUG-13 | BANK OF AMERICA | PAY | 3,373.80 | | | Negotiable |

MERRILL LYNCH
 IRWD Ledger Payment Register For 01-AUG-13 To 31-AUG-13 Report Date: 03-SEP-2013 12:24
 BANK: Bank of America N.A. Branch : Los Angeles Account: Checking AP and PR Page: 38
 Bank Account Currency: USD (US Dollar) Payment Currency: USD (US Dollar)
 Payment Type: All Display Supplier Address: No

| Payment Number | Sequence Num | Date | Supplier Name | Site | Payment Amount | Cleared Date | Cleared Amount | Status |
|------------------------------|---------------|-----------|--|-----------|----------------|--------------|----------------|------------|
| Payment Document : IRWD Wire | | | | | | | | |
| 10077 | | 28-AUG-13 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 1,200,028.27 | | | Negotiable |
| 10078 | | 28-AUG-13 | SUMITOMO MITSUI BANKING CORPORAION | NEW YORK | 1,769.42 | | | Negotiable |
| 10079 | | 28-AUG-13 | YORK INSURANCE SERVICES GROUP INC - CA | PAY | 10,127.03 | | | Negotiable |
| 10080 | | 28-AUG-13 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 865.64 | | | Negotiable |
| 10081 | | 28-AUG-13 | BANK OF AMERICA MERRILL LYNCH | PAY | 330,000.00 | | | Negotiable |
| 10082 | | 28-AUG-13 | U.S. BANK NATIONALST. ASSOCIATION | LOUIS | 8,839.16 | | | Negotiable |
| 10083 | | 29-AUG-13 | BANK OF NEW YORK MELLON TRUST COMPANY NA | NEWARK | 1,726,450.00 | | | Negotiable |
| 10084 | | 29-AUG-13 | J.R. FILANC CONSTRUCTION COMPANY INC. | ESCONDIDO | 425,680.20 | | | Negotiable |
| Payment Document Subtotal: | | | | | 6,553,542.22 | | | |
| Bank Account Subtotal : | | | | | 13,773,715.86 | | 2,117,546.35 | |
| Report Count : 995 | Report Total: | | | | 13,773,715.86 | | 2,117,546.35 | |

*** End of Report ***

Exhibit "E"

IRWD

Government Code Section 53065.5 Disclosure Report

Payments or Reimbursements for Individual Charges of \$100 or More Per Transaction for Services or Product Received

Aug 2013

| Name | Ck No. | Ck Date | Amount | Description |
|-------------------|---------------|----------------|---------------|---|
| Alejandro Coria | 341439 | 1-Aug-13 | 109.99 | Safety shoes |
| Carlos Collazo | 341620 | 15-Aug-13 | 129.58 | Safety shoes |
| Dale Alberts | 341527 | 8-Aug-13 | 100.00 | CA-NV AWWA membership renewal |
| David Chaney | 341658 | 15-Aug-13 | 148.00 | CWEA membership |
| David Chaney | 341658 | 15-Aug-13 | 170.00 | Grade I Wastewater Treatment Operator Certificate |
| David Mazzarella | 342022 | 22-Aug-13 | 116.00 | PE license renewal |
| David Paulson | 341659 | 15-Aug-13 | 319.00 | Reverse Osmosis Water Treatment Training/Certificate |
| Debbie Kanoff | 341660 | 15-Aug-13 | 163.08 | Toastmasters meeting supplies |
| Franklin Soto | 341622 | 15-Aug-13 | 129.71 | Safety shoes |
| Henry Solis | 341788 | 19-Aug-13 | 148.00 | CWEA membership |
| Jeremy Hankla | 342024 | 22-Aug-13 | 140.00 | CWEA membership |
| Juan Guzman | 342220 | 29-Aug-13 | 145.80 | Safety shoes |
| Leslie Bonkowski | 341623 | 15-Aug-13 | 131.93 | Meeting supplies |
| Mark Sarabia | 341530 | 8-Aug-13 | 118.00 | Certified Welder city license from Dept. of Building and Safety |
| Martha Ramos | 341624 | 15-Aug-13 | 140.52 | Employee service awards supplies |
| Mitchell Robinson | 342224 | 29-Aug-13 | 144.95 | Safety shoes |
| Quynh Nguyen | 341531 | 8-Aug-13 | 251.12 | OBIEE kick off lunch meeting |
| Ricky Ruiz | 342225 | 29-Aug-13 | 170.00 | Grade I Wastewater Treatment Operator Certificate |
| Steven LaMar | 341663 | 15-Aug-13 | 446.50 | Two nights Rm & Tax, May 7-8, 2013, attending ACWA Spring Conf. in Sacramento, CA |
| Steven LaMar | 341663 | 15-Aug-13 | 145.58 | One night Rm & Tax, May 22, 2013, attending Groundwater Resources Symposium, Burlingame, CA |

08
September 23, 2013

Prepared by: W. Stewart/S. Malloy

Submitted by: K. Burton (K.B.)

Approved by: Paul Cook (P. Cook)

CONSENT CALENDAR

MICHELSON WATER RECYCLING PLANT ELECTRICAL VAULT MH-E6B REPLACEMENT FINAL ACCEPTANCE

SUMMARY:

Replacement of the Michelson Water Recycling Plant (MWRP) Electrical Vault MH-E6B is complete. The contractor, Arizona Pipeline Co., has completed the required work and all punchlist items. The project has received final inspection and acceptance of construction is recommended.

BACKGROUND:

Medium voltage power of 4,160 volts is used at MWRP. Electrical feeders that serve the existing secondary clarifiers, RAS/WAS pump room, and activated sludge blowers pass through electrical manhole MH-E6B. While performing MWRP Phase 2 construction activities, it was discovered that manhole MH-E6B showed significant deterioration and had sustained major damage. The vault was in danger of collapse, which could shut down major operations of MWRP. Additionally, the manhole posed a personnel safety hazard. The vault was replaced by Arizona Pipeline Co. Construction is complete and the project is ready for final acceptance by the Board.

| | |
|-----------------------------|--|
| Project Title: | MWRP Electrical Vault Replacement MH-E6B |
| Project No.: | 20214 (1599) |
| Design Engineer: | IRWD Staff |
| Construction Management by: | IRWD Staff |
| Contractor: | Arizona Pipeline Co. |
| Original Contract Cost: | \$121,850.00 |
| Final Contract Cost: | \$123,251.85 |
| Original Contract Days: | 49 |
| Final Contract Days: | 49 |

| | |
|----------------------------|--------------|
| Total Budget: | \$123,251.85 |
| Total Project Cost (Est.): | \$123,251.85 |

FISCAL IMPACTS:

This project is funded by the MWRP Phase 2 Expansion, Project 20214 (1599). Project 20214 (1599) is included in the FY 2013-14 Capital Budget. The existing budget and Expenditure Authorization are sufficient to fund the replacement of electrical vault MH-E6B.

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations Title 14, Chapter 3, Article 7, Section 15302, which states that replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced including but not limited to: (b) replacement of a commercial structure with a new structure of substantially the same size, purpose and capacity; and (c) replacement of or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD ACCEPT CONSTRUCTION OF THE MICHELSON WATER RECYCLING PLANT ELECTRICAL VAULT MH-E6B REPLACEMENT, PROJECT 20214 (1599); AUTHORIZE THE GENERAL MANAGER TO FILE A NOTICE OF COMPLETION; AND AUTHORIZE THE RELEASE OF THE RETENTION 35 DAYS AFTER THE DATE OF RECORDING THE NOTICE OF COMPLETION.

LIST OF EXHIBITS:

None.

September 23, 2013

Prepared by: R. Thatcher/M. Hoolihan

Submitted by: K. Burton

Approved by: Paul Cook 

CONSENT CALENDAR

QUITCLAIM OF REAL PROPERTY
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC
WATER AND SEWER PIPELINE EASEMENTS
PER TRACT NO. 17004 AND INST. 2008000276110, O.R.
ORCHARD HILLS

SUMMARY:

Irvine Community Development Company, LLC (ICDC) subdivided the west half of the Orchard Hills development per Tract No. 17004 into builder lots. Easements to IRWD were dedicated on that map and granted by separate instrument. The builder lots are now being re-subdivided into residential lots and some of the previously dedicated IRWD easements are no longer needed. New easements are being dedicated on the residential tract maps. ICDC has requested that IRWD quitclaim certain previously dedicated sewer, water and access easements within its new Tract Nos. 16703, 16704, 16727 and 17619. Staff recommends that the Board adopt a resolution approving execution of the quitclaim deed to ICDC.

BACKGROUND:

ICDC subdivided the west half of the Orchard Hills development in 2007 into builder lots with the recordation of Tract No. 17004. Easements to IRWD were dedicated on that map. ICDC is now re-subdividing some of those lots into residential lots. With the re-subdivision some of the previously dedicated and granted IRWD easements are no longer needed. ICDC has requested that IRWD quitclaim previously dedicated easements for sewer, water and access purposes within Lots 10, 11, and 12 of Tract No. 17004 which lay within proposed Tract Nos. 16703, 16704 and 17619. Additionally, it has requested that Parcels C and D of a water pipeline and access easement granted to IRWD per Instrument No. 2008000276110 which lay within proposed Tract 16727 be quitclaimed. Staff recommends the Board adopt a resolution approving the quitclaim deed to ICDC. The resolution is attached as Exhibit "A", the Easement Quitclaim Deed is attached as Exhibit "B", and a map showing the location of the quitclaim areas is attached as Exhibit "C".

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

This project is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects that may result in a direct physical change in the environment or reasonably foreseeable indirect physical change in the environment.

Consent Calendar: Quitclaim Of Real Property Irvine Community Development Company, LLC
Water And Sewer Pipeline Easements Per Tract No. 17004 And Inst. 2008000276110, O.R.
Orchard Hills
September 23, 2013
Page 2

COMMITTEE STATUS:

Quitclaims are not routinely taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2013 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC

LIST OF EXHIBITS:

Exhibit "A" – Resolution
Exhibit "B" – Easement Quitclaim Deed
Exhibit "C" – Location Map

EXHIBIT "A"

RESOLUTION NO. 2013 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC

WHEREAS, Irvine Community Development Company, LLC ("ICDC") has requested that the Irvine Ranch Water District ("IRWD") Board approve the quitclaim of the existing easements for sewer, water and access purposes lying within Lots 10, 11, and 12 of Tract No. 17004 filed in Book 891, Pages 1 through 53 of Miscellaneous Maps, and Parcels C and D of the water pipeline and access easement granted per deed recorded June 9, 2008 as Instrument No. 2008000276110 of Official Records, both of Records of Orange County, California; and

WHEREAS, the purpose of the quitclaim is because ICDC is re-subdividing a portion of the above-mentioned areas containing the easements into Tract Nos. 16703, 16704, 16727 and 17619; and

WHEREAS, ICDC will be dedicating new easements for sewer, water and access purposes to IRWD on the new Tract Maps; and

WHEREAS, staff has reviewed and confirmed that the easements herein referred are no longer needed and can be quitclaimed; and

WHEREAS, the proposed quitclaim has been presented to this Board of Directors, copy of which is attached hereto as Exhibit "B".

NOW, THEREFORE, BE IT RESOLVED, the Quitclaim Deed attached hereto as Exhibit "B" to Irvine Community Development Company LLC, a Delaware limited liability company, herein described and hereby is approved and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 23rd day of September 2013.

President, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

APPROVED AS TO FORM:
BOWIE, ARNISON, WILES & GIANNONE
IRWD Legal Counsel

By _____

EXHIBIT "B"

**RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:**

Irvine Community Development Company
550 Newport Center Drive
Newport Beach, CA 92660
Attn: General Counsel's Office

ASSESSOR PARCEL NO(S):

104-043-41, 527-031-01 & 21

(Space Above This Line For Recorder's Use)

IRWD Doc. No. E _____
IRWD Res. No. _____

DOCUMENTARY TRANSFER TAX \$ consideration less than \$100
_____ Computed on the consideration or value of property conveyed; OR
_____ Computed on the consideration or value less liens or encumbrances
remaining at time of sale.

Signature or Declarant or Agent determining tax – Firm Name

EASEMENT QUITCLAIM DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 *et seq.* of the California Water Code, does hereby REMISE, RELEASE, AND FOREVER QUITCLAIM to IRVINE COMMUNITY DEVELOPMENT COMPANY LLC, a Delaware limited liability company, or the current owner of record,

all RIGHT, TITLE and INTEREST in the real property located in the City of Irvine, County of Orange, State of California, as more particularly described on Exhibit "A" and depicted on Exhibit "B", attached hereto and made a part hereof.

The rights hereby quitclaimed are not necessary or useful in the performance of the duties of said Irvine Ranch Water District.

Dated: _____, 2013

IRVINE RANCH WATER DISTRICT,
a California Water District

By: _____
Name: Douglas J. Reinhart
Title: President

By: _____
Name: Leslie Bonkowski
Title: District Secretary

MAIL TAX STATEMENTS TO THE ABOVE ADDRESS

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

On _____, 2013, before me, _____, a Notary Public in and for said State, personally appeared Douglas J. Reinhart and Leslie Bonkowski, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (SEAL)
Notary Public in and for said State

EXHIBIT "A"

**QUITCLAIM OF EASEMENTS FOR
SEWER, WATER AND ACCESS PURPOSES
WITHIN ORCHARD HILLS DEVELOPMENT**

LEGAL DESCRIPTION

Quitclaim 1:

That certain easement for sewer, water and access purposes dedicated thereon and lying within Lot 10 of Tract No. 17004, in the City of Irvine, County of Orange, State of California, as shown on the map thereof filed in Book 891, Pages 1 through 53 of Miscellaneous Maps, in the Office of the County Recorder of said County.

Quitclaim 2:

That certain easement for sewer, water and access purposes dedicated thereon and lying within Lot 11 of Tract No. 17004, in the City of Irvine, County of Orange, State of California, as shown on the map thereof filed in Book 891, Pages 1 through 53 of Miscellaneous Maps, in the Office of the County Recorder of said County.

Quitclaim 3:

That certain easement for sewer, water and access purposes dedicated thereon and lying within Lot 12 of Tract No. 17004, in the City of Irvine, County of Orange, State of California, as shown on the map thereof filed in Book 891, Pages 1 through 53 of Miscellaneous Maps, in the Office of the County Recorder of said County.

Quitclaim 4:

That portion of Block 83 of Irvine's Subdivision, in the City of Irvine, County of Orange, State of California, as shown on a map thereof filed in Book 1, Page 88 of Miscellaneous Record Maps in the Office of the county Recorder of said County being Parcels C and D as described in that certain Grant of Easement to Irvine Ranch Water District recorded June 9, 2008 as Instrument No. 2008000276110 of Official Records in said Office of the County Recorder.

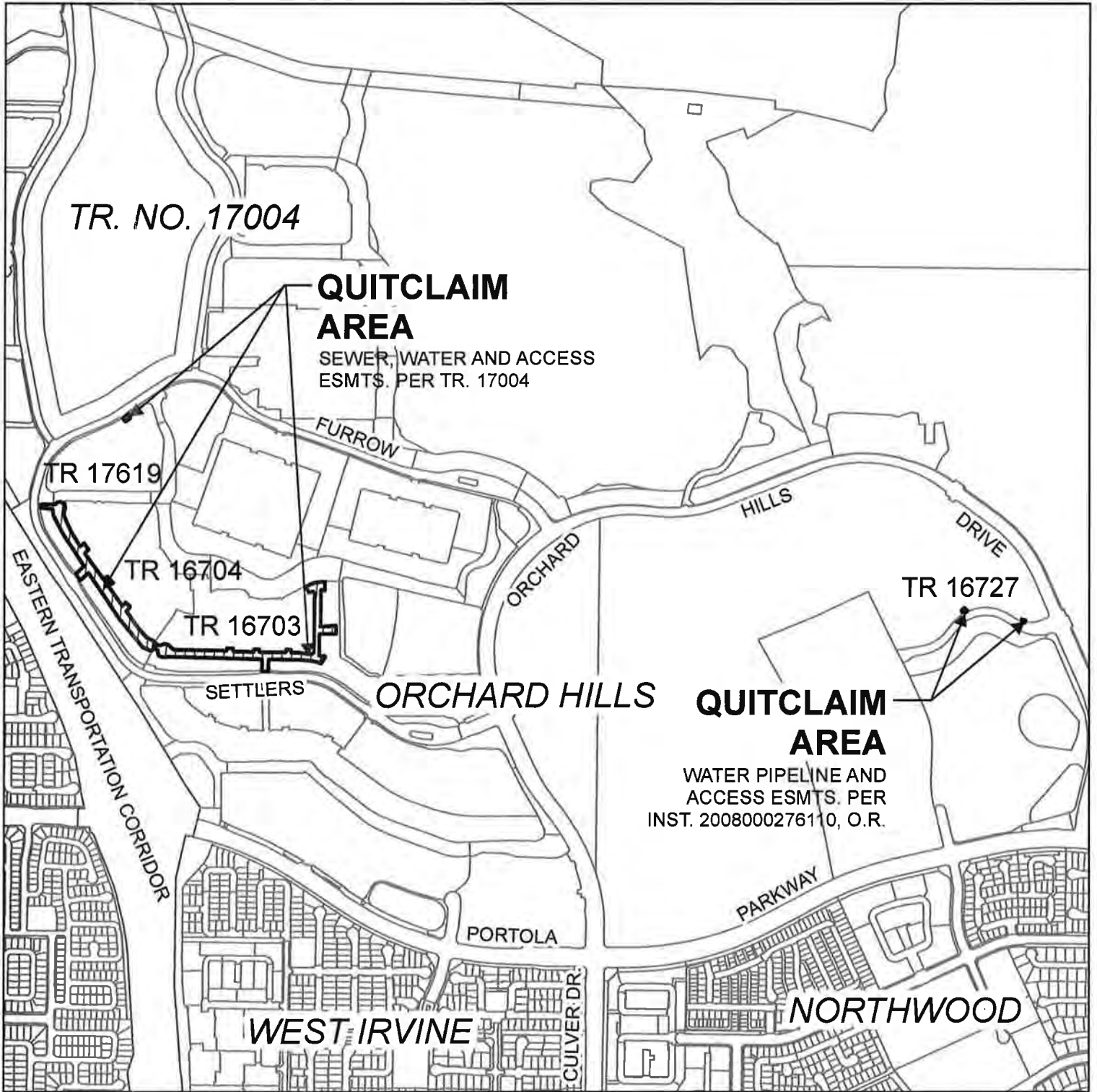
Prepared by me or under my direction:

Dated: September 11, 2013

Gregory P. Heiertz, R.C.E. 33084
License expires June 30, 2014



EXHIBIT "C" LOCATION MAP



**QUITCLAIM OF SEWER, WATER AND ACCESS EASEMENTS
TO IRVINE COMMUNITY DEVELOPMENT COMPANY LLC**



September 23, 2013

Prepared by: R. Thatcher/M. Hoolihan

Submitted by: K. Burton

Approved by: Paul Cook 

CONSENT CALENDAR

QUITCLAIM OF REAL PROPERTY
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC
WATER AND SEWER PIPELINE EASEMENTS PER TRACT NO. 17420
CYPRUS VILLAGE

SUMMARY:

Irvine Community Development Company, LLC (ICDC) subdivided the west half of the Cyprus Village (Planning Area 40) development per Tract No. 17420 into builder lots. Certain easements to IRWD were dedicated on that map. The builder lots are now being re-subdivided into residential lots and some of the previously dedicated IRWD easements are no longer needed. New easements are being dedicated on the residential tract maps. ICDC has requested that IRWD quitclaim certain previously dedicated sewer and water easements within its new Tract Nos. 17514 and 17515. Staff recommends that the Board adopt a resolution approving execution of the quitclaim deed to ICDC.

BACKGROUND:

ICDC subdivided the west half of the Cyprus Village development in 2011 into builder lots with the recordation of Tract No. 17420. Easements to IRWD were dedicated on various lots on that map. ICDC is now re-subdividing Lot 9 and the adjoining lettered lots of Tract No. 17420 into Tract Nos. 17514 and 17515. This re-subdivision has eliminated the need for the previously dedicated IRWD easements within lettered Lots D and II. ICDC has requested that those easements be quitclaimed to clear title. New easements to IRWD are being dedicated on the maps of said Tract Nos. 17514 and 17515. Staff recommends the Board adopt a resolution approving execution of the quitclaim deed to ICDC. The resolution is attached as Exhibit "A", the Easement Quitclaim Deed is attached as Exhibit "B", and a map showing the location of the quitclaim areas is attached as Exhibit "C".

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

This project is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects that may result in a direct physical change in the environment or reasonably foreseeable indirect physical change in the environment.

Consent Calendar: Quitclaim of Real Property, Irvine Community Development Company, LLC,
Water And Sewer Pipeline Easements Per Tract No. 17420 Cyprus Village
September 23, 2013
Page 2

COMMITTEE STATUS:

Quitclaims are not routinely taken to Committee prior to submittal for Board approval.

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2013 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC

LIST OF EXHIBITS:

Exhibit "A" – Resolution
Exhibit "B" – Easement Quitclaim Deed
Exhibit "C" – Location Map

EXHIBIT "A"

RESOLUTION NO. 2013 -

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
IRVINE COMMUNITY DEVELOPMENT COMPANY, LLC

WHEREAS, Irvine Community Development Company, LLC ("ICDC") has requested that the Irvine Ranch Water District ("IRWD") Board approve the quitclaim of the existing easements for sewer, water and access purposes lying within Lots D and II of Tract No. 17420 filed in Book 907, Pages 43 through 50 of Miscellaneous Maps, Records of Orange County, California; and

WHEREAS, the purpose of the quitclaim is because the above-mentioned areas containing the easements are being subdivided by ICDC along with other land into Tract Nos. 17514 and 17515; and

WHEREAS, ICDC will be dedicating new easements for sewer, water and access purposes to IRWD on the new Tract Maps; and

WHEREAS, staff has reviewed and confirmed that the easements herein referred are no longer needed and can be quitclaimed; and

WHEREAS, the proposed quitclaim has been presented to this Board of Directors, copy of which is attached hereto as Exhibit "B".

NOW, THEREFORE, BE IT RESOLVED, the Quitclaim Deed attached hereto as Exhibit "B" to Irvine Community Development Company LLC, a Delaware limited liability company, herein described and hereby is approved and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 23rd day of September 2013.

President, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE
IRWD Legal Counsel

By _____

EXHIBIT "B"

**RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:**

Irvine Community Development Company
550 Newport Center Drive
Newport Beach, CA 92660
Attn: General Counsel's Office

ASSESSOR PARCEL NO(S):

104-413-42. 43

(Space Above This Line For Recorder's Use)

IRWD Doc. No. E _____
IRWD Res. No. _____

DOCUMENTARY TRANSFER TAX \$ consideration less than \$100
_____ Computed on the consideration or value of property conveyed; OR
_____ Computed on the consideration or value less liens or encumbrances
remaining at time of sale.

Signature or Declarant or Agent determining tax – Firm Name

EASEMENT QUITCLAIM DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 *et seq.* of the California Water Code, does hereby REMISE, RELEASE, AND FOREVER QUITCLAIM to IRVINE COMMUNITY DEVELOPMENT COMPANY LLC, a Delaware limited liability company, or the current owner of record,

all RIGHT, TITLE and INTEREST in the real property located in the City of Irvine, County of Orange, State of California, as more particularly described on Exhibit "A" and depicted on Exhibit "B", attached hereto and made a part hereof.

The rights hereby quitclaimed are not necessary or useful in the performance of the duties of said Irvine Ranch Water District.

Dated: _____, 2013

IRVINE RANCH WATER DISTRICT,
a California Water District

By: _____
Name: Douglas J. Reinhart
Title: President

By: _____
Name: Leslie Bonkowski
Title: District Secretary

MAIL TAX STATEMENTS TO THE ABOVE ADDRESS

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

On _____, 2013, before me, _____, a Notary Public in and for said State, personally appeared Douglas J. Reinhart and Leslie Bonkowski, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (SEAL)
Notary Public in and for said State

EXHIBIT "A"

**QUITCLAIM OF EASEMENTS FOR
SEWER, WATER AND ACCESS PURPOSES
WITHIN LOTS D AND II, TRACT NO. 17420**

LEGAL DESCRIPTION

Those certain easements for sewer, water and access purposes dedicated thereon and lying within Lots D and II of Tract No. 17420, in the City of Irvine, County of Orange, State of California, as shown on the map thereof filed in Book 907, Pages 43 through 50 of Miscellaneous Maps, in the Office of the County Recorder of said County.

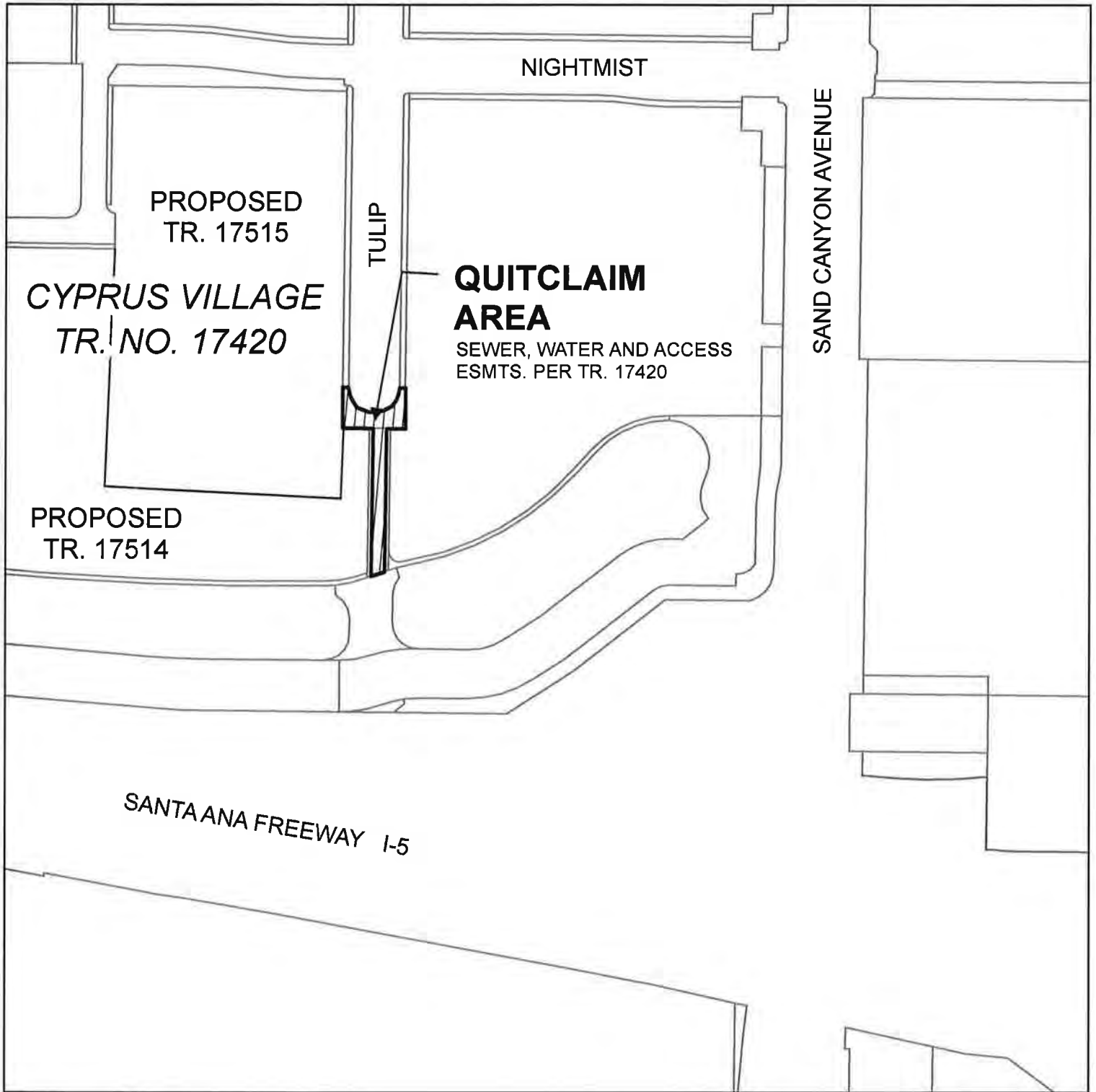
Prepared by me or under my direction:

Dated: September 11, 2013

Gregory P. Heiertz, R.C.E. 33084
License expires June 30, 2014




EXHIBIT "C"
LOCATION MAP



**QUITCLAIM OF SEWER AND WATER EASEMENT
TO IRVINE COMMUNITY DEVELOPMENT COMPANY LLC**



September 23, 2013
Prepared by: R. Thatcher/M. Hoolihan
Submitted by: K. Burton
Approved by: Paul Cook 

CONSENT CALENDAR

QUITCLAIM OF REAL PROPERTY SHEA/BAKER RANCH ASSOCIATES, LLC WATER AND SEWER PIPELINE EASEMENT PER INST. 93-0527509, O.R., BAKER RANCH

SUMMARY:

Baker Ranch is currently under construction by Shea/Baker Ranch Associates, LLC (Shea/Baker). A domestic water pipeline was relocated as part of the development and an easement was granted to IRWD over the new domestic pipeline as well as a new recycled water pipeline. The developer has requested that IRWD quitclaim the easement over the abandoned pipeline to clear title. Staff recommends that the Board adopt a resolution approving execution of the quitclaim deed to Shea/Baker.

BACKGROUND:

Baker Ranch is currently under development by Shea/Baker. As part of that development, certain existing pipelines have been relocated or replaced as well as new pipelines installed. An existing 8-inch domestic water pipeline extending from the end of Baffin Bay Drive was replaced by a 16-inch pipeline for the new development. Additionally, an 8-inch recycled water pipeline was installed parallel with the domestic water pipeline. Shea/Baker has granted the District a new easement for the domestic water and recycled water pipelines and has requested that IRWD quitclaim the existing water and sewer pipeline easement per Instrument No. 93-0527509 of Official Records over the abandoned pipeline. Staff recommends that the Board adopt a resolution approving execution of the quitclaim deed to Shea/Baker. The resolution is attached as Exhibit "A", the Easement Quitclaim Deed is attached as Exhibit "B", and a map showing the location of the quitclaim area is attached as Exhibit "C".

FISCAL IMPACT:

None.

ENVIRONMENTAL COMPLIANCE:

This project is not subject to the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15061 (b) (3), in that CEQA applies only to projects that may result in a direct physical change in the environment or reasonably foreseeable indirect physical change in the environment.

COMMITTEE STATUS:

Quitclaims are not routinely taken to Committee prior to submittal for Board approval.

Consent Calendar: Quitclaim of Real Property, Shea/Baker Ranch Associates, LLC, Water and
Sewer Pipeline Easement Per Inst. 93-0527509, O.R., Baker Ranch
September 23, 2013
Page 2

RECOMMENDATION:

THAT THE BOARD ADOPT THE FOLLOWING RESOLUTION BY TITLE:

RESOLUTION NO. 2013 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
SHEA/BAKER RANCH ASSOCIATES, LLC

LIST OF EXHIBITS:

Exhibit "A" – Resolution
Exhibit "B" – Easement Quitclaim Deed
Exhibit "C" – Location Map

EXHIBIT "A"

RESOLUTION NO. 2013 - _____

RESOLUTION OF THE BOARD OF DIRECTORS OF
IRVINE RANCH WATER DISTRICT
APPROVING EXECUTION OF THE QUITCLAIM DEED TO
SHEA/BAKER RANCH ASSOCIATES, LLC

WHEREAS, Shea/Baker Ranch Associates, LLC (Shea/Baker) has requested that the Irvine Ranch Water District (IRWD) Board approve the quitclaim of a portion of the water, recycled water and sewer easement per the Grant of Easement to Los Alisos Water District recorded August 6, 1993 as Instrument No. 93-0527509 of Official Records of Orange County; and

WHEREAS, the purpose of the quitclaim is to clear title; and

WHEREAS, the pipeline that was located within said easement has been abandoned as part of a the Baker Ranch development; and

WHEREAS, a new pipeline has been installed and a new easement in a different location was granted to IRWD by Shea/Baker; and

WHEREAS, staff has reviewed and confirmed that said easement herein referred can be quitclaimed; and

WHEREAS, the proposed quitclaim has been presented to this Board of Directors, copy of which is attached hereto as Exhibit "B".

NOW, THEREFORE, BE IT RESOLVED, the Quitclaim Deed attached hereto as Exhibit "B" to Shea/Baker Ranch Associates LLC, a California limited liability company, herein described and hereby is approved and execution by the District's officers is authorized.

ADOPTED, SIGNED and APPROVED this 23rd day of September, 2013.

President, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

Secretary, IRVINE RANCH WATER
DISTRICT and of the Board of Directors
thereof

APPROVED AS TO FORM:
BOWIE, ARNESON, WILES & GIANNONE
IRWD Legal Counsel

By _____

EXHIBIT "B"

**RECORDING REQUESTED BY AND
WHEN RECORDED RETURN TO:**

Shea/Baker Ranch Assoc., LLC
130 Vantis, Suite 200
Aliso Viejo, CA 92656
Attn:

ASSESSOR PARCEL NO(S):

610-421-10

(Space Above This Line For Recorder's Use)

IRWD Doc. No. E _____

IRWD Res.No. _____

DOCUMENTARY TRANSFER TAX \$ consideration less than \$100

_____ Computed on the consideration or value of property conveyed; OR

_____ Computed on the consideration or value less liens or encumbrances
remaining at time of sale.

Signature or Declarant or Agent determining tax – Firm Name

EASEMENT QUITCLAIM DEED

FOR VALUABLE CONSIDERATION, receipt of which is hereby acknowledged, IRVINE RANCH WATER DISTRICT, a California Water District organized under and existing pursuant to Section 34000 *et seq.* of the California Water Code and Consolidated Successor District to Los Alisos Water District, does hereby REMISE, RELEASE, AND FOREVER QUITCLAIM to (Name of entity), or the current owner of record,

all RIGHT, TITLE and INTEREST in the real property located in the City of Lake Forest, County of Orange, State of California, , as more particularly described on Exhibit "A" and depicted on Exhibit "B", attached hereto and by this reference mad a part hereof.

The rights hereby quitclaimed are not necessary or useful in the performance of the duties of said Irvine Ranch Water District.

Dated: _____, 2013

IRVINE RANCH WATER DISTRICT,
a California Water District

By: _____

Name: Douglas J. Reinhart

Title: President

By: _____

Name: Leslie Bonkowski

Title: District Secretary

MAIL TAX STATEMENTS TO THE ABOVE ADDRESS

STATE OF CALIFORNIA)
)
COUNTY OF ORANGE)

On _____, 2013, before me, _____, a Notary Public in and for said State, personally appeared Douglas J. Reinhart and Leslie Bonkowski, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____ (SEAL)
Notary Public in and for said State

RBF Consulting
14725 Alton Parkway
Irvine, California 92618

January 14, 2013
JN 130352.801
Page 1 of 1

EXHIBIT "A"

LEGAL DESCRIPTION

IRVINE RANCH WATER DISTRICT
QUITCLAIM OF WATER EASEMENT
TRACT NO. 17491

That certain parcel of land situated in the City of Lake Forest, County of Orange, State of California, lying within those portions of Lot 3 and Monarch (Public Street) of Tract No. 17491, filed in Book 915, Pages 9 through 22 of Miscellaneous Maps in the Office of the County Recorder of said Orange County, more particularly described as that certain Grant of Easement recorded August 6, 1993 as Instrument No. 93-0527509 of Official Records in said Office of the County Recorder of Orange County, lying northerly of that certain course in the southerly line of said Lot 3 having a bearing and distance of North 88°53'47" West 95.34 feet.

CONTAINING: 1384 Square Feet.

SUBJECT TO all Covenants, Rights, Rights-of-Way and Easements of Record.

EXHIBIT "B" attached and by this reference made a part hereof.

 1/14/2013
Kurt R. Troxell, L.S. 7854 Date



H:\pdata\10108707\Admin\Legals\Tr17491_Lot3_IRWD_QC.docx

TRACT NO. 17491

$\Delta=39^{\circ}54'53''$ $L=664.60'$
 $\Delta=56^{\circ}40'11''$

SW'LY RIGHT-OF-WAY
OF MONARCH PER
TRACT NO. 17491

C/L MONARCH
(PUBLIC STREET)

INSTRUMENT NO.
93-0527509, O.R.

$N23^{\circ}53'13''E$
(RAD)

NW'LY CORNER LOT 4
TRACT NO. 17491

$R=954.00'$

$L=943.58'$
 $\Delta=16^{\circ}45'18''$ $L=278.98'$

LOT

S'LY LINE OF LOT 3 &
GENERAL S'LY BOUNDARY
OF TRACT NO. 17491

49.79' 15.00' 30.55'

$N88^{\circ}53'47''W$ 95.34'

PARCEL MAP NO. 97-173
P.M.B. 301/43-45

40'

LOT "A"

C/L BAFFIN
BAY DRIVE

40'

$N01^{\circ}06'44''E$ 252.50'

$N00^{\circ}31'52''E$

LOT 4

M.M. 915/9-22

SCALE: 1"=20'

NOTE: RECORD DATA PER
TRACT NO. 17491

EXHIBIT "B"

SKETCH TO ACCOMPANY A
LEGAL DESCRIPTION FOR

IRVINE RANCH WATER DISTRICT
QUITCLAIM OF WATER EASEMENT
TRACT NO. 17491

CONTAINING: 1384 SQ. FT.

SHEET 1 OF 1 SHEET

RBF
CONSULTING

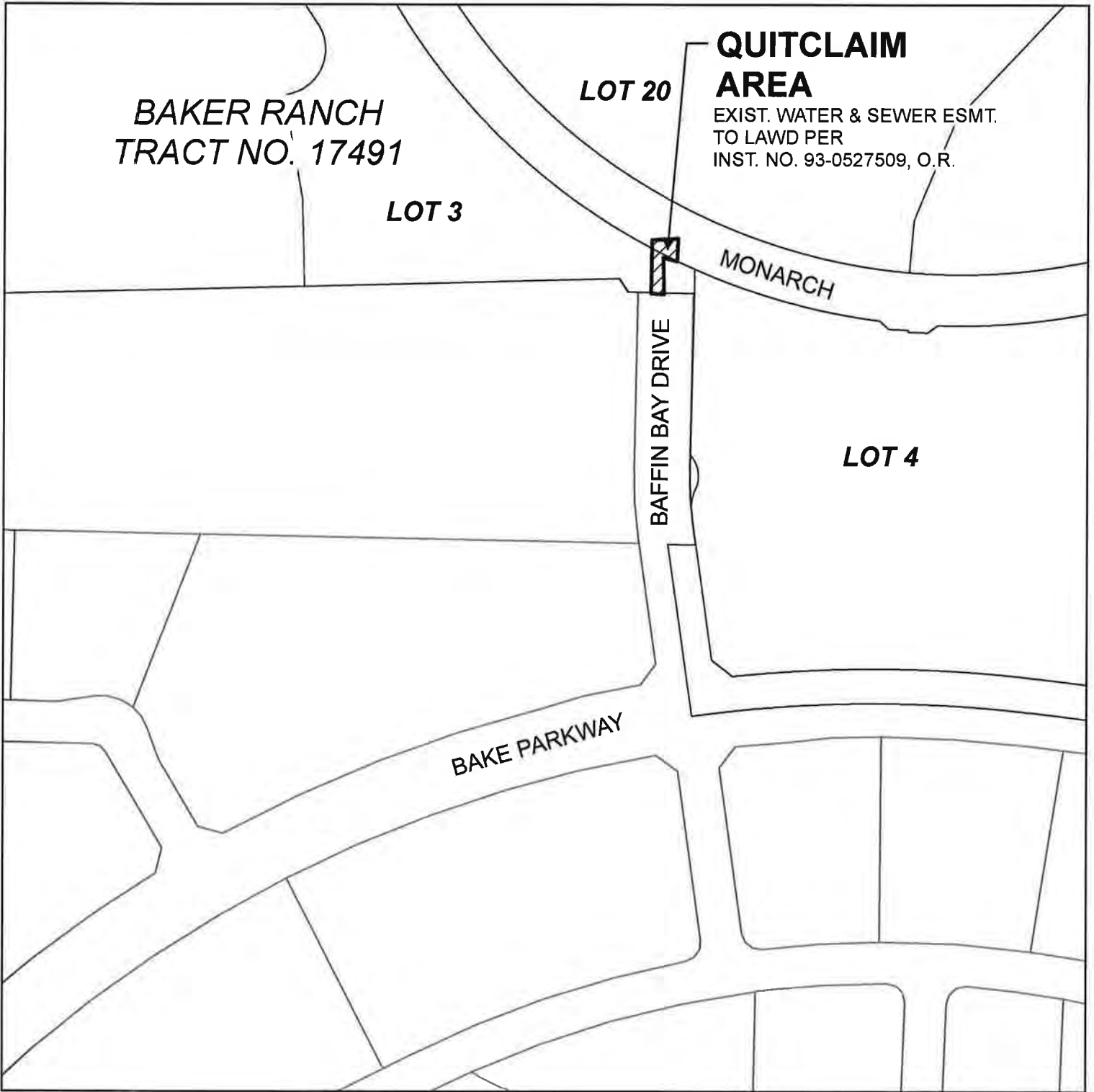
PLANNING ■ DESIGN ■ CONSTRUCTION

14725 ALTON PARKWAY
IRVINE, CALIFORNIA 92618-2027
949.472.3505 • FAX 949.472.8373 • www.RBF.com

JANUARY 14, 2013


J.N. 130352.801

EXHIBIT "C"
LOCATION MAP



**QUITCLAIM OF WATER & SEWER PIPELINE EASEMENT
TO SHEA/BAKER RANCH ASSOCIATES, LLC**



September 23, 2013
Prepared by: Gretchen Maswadeh
Submitted by: Jenny Roney
Approved by: Paul Cook 

ACTION CALENDAR

2014 MEDICAL INSURANCE COVERAGE RENEWAL

SUMMARY:

CalPERS Health Benefits Services has notified participating agencies of premiums for the 2014 contract year. Staff recommends that the Board:

- Extend coverage through CalPERS medical insurance program for calendar year 2014, and,
- Adjust employee contributions as described below.

BACKGROUND:

The District currently utilizes the CalPERS medical insurance program and receives premium rates each year in advance of open enrollment in September. For the 2014 calendar year, CalPERS has notified the District of premium increases for each of the specific plans from which IRWD employees can choose. CalPERS has also added six new HMO plans to its carrier options. These new offerings have resulted in a decrease in health premiums for several of the plans.

Last year, IRWD retained Aon Hewitt to review the District's overall retirement and health benefits package to maximize value to the employees and develop an equitable cost sharing method to minimize increasing exposure to rising costs. The health benefits portion of the study was completed and presented to the Board in a workshop on May 28, 2013. Recommendations from the consultant included participating in the CalPERS medical insurance program for calendar year 2014 while continuing to monitor developments with the ACWA health plan offerings and the evolution of coalitions and health plan exchanges as a future alternative to CalPERS.

Medical Insurance Premium Changes:

CalPERS notified the District that for the 2014 contract year, premiums for the District's plans will change as follows:

| | <u>2014 Premiums</u> | <u>2013 Premiums</u> |
|---------------------------|----------------------|----------------------|
| PERS Care | -35.70% decrease | 5.23% increase |
| PERS Choice | 0.16% increase | 16.17% increase |
| PERS Select | 31.32% increase | -0.04% decrease |
| Blue Shield Advantage HMO | -15.64% decrease | 10.34% increase |
| Blue Shield Net Value HMO | -16.88% decrease | 9.58% increase |
| Kaiser Permanente | 7.84% increase | 9.01% increase |

Plan Design Changes:

Staff has not been notified of any substantive changes to the plan designs or benefits available to employees under the current CalPERS health plan offerings. Employees will be notified of any changes that may affect their health plan choices prior to open enrollment. The CalPERS open enrollment period is September 16, 2013 through October 11, 2013. Information about CalPERS health plans was mailed to employees at their homes during the last week of August. Open enrollment meetings to review plan design changes, new plan offerings, and making open enrollment elections were scheduled on September 17, 2013.

Proposed Changes to Employee and Employer Contributions:

Staff recommends that changes be made to employee contributions for calendar year 2014 based on the District's past practice of using the high enrollment PPO plan (PERS Choice) to set employee and employer contributions, and setting the employee and employer contributions for the other plans by using the calculated employer contribution for the PERS Choice plan. Because the premiums for the PERS Choice plan did not change significantly for 2014, District contributions will remain at 2013 levels. For plans that have premiums lower than the District contribution, a minimum employee contribution equal to the 2013 lowest cost plan is recommended. Attached is Exhibit "A" which outlines the proposed employee and employer costs for this recommendation by plan and in the aggregate.

Employee and employer contributions for 2013 and proposed contributions for 2014 as shown in Exhibit "A" for 2014 are summarized in the tables below.

2013 and Proposed 2014 Monthly Contributions and Premiums

| Plan Providers | 2014 Premium Change | 2013 Employee Contribution (Emp/E+1/Fam) | 2013 District Contribution (Emp/E+1/Fam) | Proposed 2014 Employee Contribution (Emp/E+1/Fam) | Proposed 2014 District Contribution (Emp/E+1/Fam) | Total 2014 Premium (Emp/E+1/Fam) |
|------------------------|---------------------------|---|---|--|--|---|
| PERS Care PPO | -35.70% | \$441/\$882/\$1152 | \$552/\$1103/\$1429 | \$86/\$172/\$228 | \$552/\$1104/\$1431 | \$637/\$1276/\$1659 |
| PERS Choice PPO | 0.16% | \$60/\$120/\$160 | \$551/\$1103/\$1429 | \$60/\$120/\$160 | \$552/\$1104/\$1431 | \$612/\$1224/\$1591 |
| PERS Select PPO | 31.32% | \$20/\$40/\$60 | \$426/\$853/\$1101 | \$34/\$68/\$93 | \$552/\$1104/\$1431 | \$586/\$1172/\$1524 |
| Blue Shield Access + | -15.64% | \$92/\$184/\$246 | \$552/\$1104/\$1428 | \$7/\$15/\$33 | \$536/\$1071/\$1379 | \$543/\$1086/\$1412 |
| Blue Shield NetValue | -16.88% | \$7/\$15/\$33 | \$543/\$1085/\$1397 | \$7/\$15/\$33 | \$450/\$899/\$1156 | \$457/\$914/\$1189 |
| Kaiser Permanente | 7.84% | \$7/\$15/\$33 | \$552/\$1103/\$1420 | \$50/\$101/\$136 | \$552/\$1104/\$1431 | \$602/\$1205/\$1567 |
| Anthem Traditional HMO | | | | \$40/\$80/\$108 | \$552/\$1104/\$1431 | \$592/\$1184/\$1539 |
| Anthem HMO Select | | | | \$7/\$15/\$33 | \$530/\$1059/\$1363 | \$537/\$1074/\$1396 |
| Health Net Salud y Mas | | | | \$7/\$15/\$33 | \$483/\$964/\$1240 | \$490/\$979/\$1273 |
| Health Net SmartCare | | | | \$16/\$33/\$47 | \$552/\$1104/\$1431 | \$568/\$1137/\$1478 |
| United HealthCare | | | | \$7/\$15/\$33 | \$514/\$1027/\$1321 | \$521/\$1042/\$1354 |
| Sharp Health Plan | | | | \$7/\$15/\$33 | \$531/\$1062/\$1367 | \$538/\$1077/\$1400 |

CalPERS Administrative Fees and Reserves:

On July 1, 2012, the CalPERS administrative fee was reduced to 0.25%. The administrative fee is calculated on total active and total retired health premiums each month. Staff has not been notified of a proposed change to the administrative fee. CalPERS can also charge up to 4% for a

contingency reserve fund but has not charged one since 1985. There was no contingency reserve fee charged for the 2013 calendar year, and to date the District has not been notified of any contingency reserve fees for 2014.

FISCAL IMPACTS:

Renewal of the District's current health insurance coverage with CalPERS, as represented in Table A, will result in total projected expenses for FY 2013-14 of \$4,157,628. The District's budget for this coverage for FY 2013-14 is \$4,514,000. Projected annual medical insurance premiums for FY 2013-14 will be approximately \$356,372 (7.89%) under budget.

ENVIRONMENTAL COMPLIANCE:

This item is not a project as defined in the California Environmental Quality Act Code of Regulations, Title 14, Chapter 3, Section 15378.

COMMITTEE STATUS:

This item was reviewed by the Finance and Personnel Committee on September 3, 2013.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE CONTINUANCE OF THE DISTRICT'S HEALTH CARE COVERAGE WITH CALPERS FOR CALENDAR YEAR 2014 WITH CHANGES IN EMPLOYEE AND DISTRICT CONTRIBUTION LEVELS AS RECOMMENDED IN TABLE A.

LIST OF EXHIBITS:

Exhibit "A" – Medical Premium Comparison with Recommended Payroll Deductions

Irvine Ranch Water District
2014 CalPERS Monthly Medical Insurance Premiums Comparison
and Proposed IRWD Payroll Deductions

Exhibit "A"

| | 2013 Enrollment | 2013 Medical Premiums | 2014 Medical Premiums | 2014 Premium Increases | | 2013 P/R Deductions | Proposed 2014 P/R Deductions | Proposed 2014 IRWD Contribution |
|---------------------------------------|--------------------|-----------------------------|-----------------------------|---------------------------|----------------|------------------------|------------------------------------|---------------------------------------|
| | | | | \$ | % | | | |
| <u>PERS Care PPO</u> | | | | | | | | |
| Single | 0 | \$992.61 | \$638.22 | (\$354.39) | -35.70% | \$441.00 | \$86.00 | \$552.22 |
| Two Party | 0 | \$1,985.22 | \$1,276.44 | (\$708.78) | -35.70% | \$882.00 | \$172.00 | \$1,104.44 |
| Family | <u>0</u> | <u>\$2,580.79</u> | <u>\$1,659.37</u> | <u>(\$921.42)</u> | <u>-35.70%</u> | <u>\$1,152.00</u> | <u>\$228.00</u> | <u>\$1,431.37</u> |
| | 0 | \$0.00 | \$0.00 | | | \$0.00 | \$0.00 | \$0.00 |
| <u>PERS Choice PPO</u> | | | | | | | | |
| Single | 22 | \$611.30 | \$612.25 | \$0.95 | 0.16% | \$60.00 | \$60.00 | \$552.25 |
| Two Party | 25 | \$1,222.60 | \$1,224.50 | \$1.90 | 0.16% | \$120.00 | \$120.00 | \$1,104.50 |
| Family | <u>45</u> | <u>\$1,589.38</u> | <u>\$1,591.85</u> | <u>\$2.47</u> | <u>0.16%</u> | <u>\$160.00</u> | <u>\$160.00</u> | <u>\$1,431.85</u> |
| | 92 | \$115,535.70 | \$115,715.25 | | | \$11,520.00 | \$11,520.00 | \$104,195.25 |
| <u>PERS Select PPO</u> | | | | | | | | |
| Single | 3 | \$446.49 | \$586.32 | \$139.83 | 31.32% | \$20.00 | \$34.00 | \$552.32 |
| Two Party | 7 | \$892.98 | \$1,172.64 | \$279.66 | 31.32% | \$40.00 | \$68.00 | \$1,104.64 |
| Family | <u>8</u> | <u>\$1,160.87</u> | <u>\$1,524.43</u> | <u>\$363.56</u> | <u>31.32%</u> | <u>\$60.00</u> | <u>\$93.00</u> | <u>\$1,431.43</u> |
| | 18 | \$16,877.29 | \$22,162.88 | | | \$820.00 | \$1,322.00 | \$20,840.88 |
| <u>Blue Shield Acces+</u> | | | | | | | | |
| Single | 9 | \$643.93 | \$543.21 | (\$100.72) | -15.64% | \$92.00 | \$7.00 | \$536.21 |
| Two Party | 10 | \$1,287.86 | \$1,086.42 | (\$201.44) | -15.64% | \$184.00 | \$15.00 | \$1,071.42 |
| Family | <u>23</u> | <u>\$1,674.22</u> | <u>\$1,412.35</u> | <u>(\$261.87)</u> | <u>-15.64%</u> | <u>\$246.00</u> | <u>\$33.00</u> | <u>\$1,379.35</u> |
| | 42 | \$57,181.03 | \$48,237.14 | | | \$8,326.00 | \$972.00 | \$47,265.14 |
| <u>Blue Shield NetValue</u> | | | | | | | | |
| Single | 8 | \$550.03 | \$457.17 | (\$92.86) | -16.88% | \$7.00 | \$7.00 | \$450.17 |
| Two Party | 2 | \$1,100.06 | \$914.34 | (\$185.72) | -16.88% | \$15.00 | \$15.00 | \$899.34 |
| Family | <u>16</u> | <u>\$1,430.08</u> | <u>\$1,188.64</u> | <u>(\$241.44)</u> | <u>-16.88%</u> | <u>\$33.00</u> | <u>\$33.00</u> | <u>\$1,155.64</u> |
| | 26 | \$29,481.64 | \$24,504.28 | | | \$614.00 | \$614.00 | \$23,890.28 |
| <u>Kaiser Permanente</u> | | | | | | | | |
| Single | 31 | \$558.95 | \$602.79 | \$43.84 | 7.84% | \$7.00 | \$50.00 | \$552.79 |
| Two Party | 15 | \$1,117.90 | \$1,205.58 | \$87.68 | 7.84% | \$15.00 | \$101.00 | \$1,104.58 |
| Family | <u>66</u> | <u>\$1,453.27</u> | <u>\$1,567.25</u> | <u>\$113.98</u> | <u>7.84%</u> | <u>\$33.00</u> | <u>\$136.00</u> | <u>\$1,431.25</u> |
| | 112 | \$130,011.77 | \$140,208.69 | | | \$2,620.00 | \$12,041.00 | \$128,167.69 |
| <u>PERS Choice PPO LA</u> | | | | | | | | |
| Single | 1 | \$587.46 | \$599.19 | \$11.73 | 2.00% | \$60.00 | \$60.00 | \$539.19 |
| Two Party | 2 | \$1,174.92 | \$1,198.38 | \$23.46 | 2.00% | \$120.00 | \$120.00 | \$1,078.38 |
| Family | <u>2</u> | <u>\$1,527.40</u> | <u>\$1,557.89</u> | <u>\$30.49</u> | <u>2.00%</u> | <u>\$160.00</u> | <u>\$160.00</u> | <u>\$1,397.89</u> |
| | 5 | \$8,106.96 | \$6,111.73 | | | \$620.00 | \$620.00 | \$5,491.73 |
| <u>PERS Select PPO LA</u> | | | | | | | | |
| Single | 1 | \$429.08 | \$573.83 | \$144.75 | 33.73% | \$20.00 | \$34.00 | \$539.83 |
| Two Party | 0 | \$858.16 | \$1,147.66 | \$289.50 | 33.73% | \$40.00 | \$68.00 | \$1,079.66 |
| Family | <u>1</u> | <u>\$1,115.61</u> | <u>\$1,491.96</u> | <u>\$376.35</u> | <u>33.73%</u> | <u>\$60.00</u> | <u>\$93.00</u> | <u>\$1,398.96</u> |
| | 2 | \$1,544.69 | \$2,065.79 | | | \$80.00 | \$127.00 | \$1,938.79 |
| <u>Blue Shield Acces+ LA</u> | | | | | | | | |
| Single | 3 | \$530.75 | \$469.91 | (\$60.84) | -11.46% | \$92.00 | \$7.00 | \$462.91 |
| Two Party | 1 | \$1,061.50 | \$939.82 | (\$121.68) | -11.46% | \$184.00 | \$15.00 | \$924.82 |
| Family | <u>1</u> | <u>\$1,379.95</u> | <u>\$1,221.77</u> | <u>(\$158.18)</u> | <u>-11.46%</u> | <u>\$246.00</u> | <u>\$33.00</u> | <u>\$1,188.77</u> |
| | 5 | \$2,972.20 | \$3,571.32 | | | \$706.00 | \$69.00 | \$3,502.32 |
| <u>Blue Shield NetValue LA</u> | | | | | | | | |
| Single | 0 | \$453.35 | \$395.50 | (\$57.85) | -12.76% | \$7.00 | \$7.00 | \$388.50 |
| Two Party | 0 | \$906.70 | \$791.00 | (\$115.70) | -12.76% | \$15.00 | \$15.00 | \$776.00 |
| Family | <u>2</u> | <u>\$1,178.71</u> | <u>\$1,028.30</u> | <u>(\$150.41)</u> | <u>-12.76%</u> | <u>\$33.00</u> | <u>\$33.00</u> | <u>\$995.30</u> |
| | 2 | \$3,264.12 | \$2,056.60 | | | \$66.00 | \$66.00 | \$1,990.60 |

| | 2013 Enrollment | 2013 Medical Premiums | 2014 Medical Premiums | 2014 Premium Increases | | 2013 P/R Deductions | Proposed 2014 P/R Deductions | Proposed 2014 IRWD Contribution |
|-------------------------------------|--------------------|-----------------------------|-----------------------------|---------------------------|---------------|------------------------|------------------------------------|---------------------------------------|
| | | | | \$ | % | | | |
| Kaiser Permanente LA | | | | | | | | |
| Single | 1 | \$502.40 | \$541.79 | \$39.39 | 7.84% | \$7.00 | \$50.00 | \$491.79 |
| Two Party | 2 | \$1,004.80 | \$1,083.58 | \$78.78 | 7.84% | \$15.00 | \$101.00 | \$982.58 |
| Family | 3 | <u>\$1,306.24</u> | <u>\$1,408.65</u> | \$102.41 | 7.84% | <u>\$33.00</u> | <u>\$136.00</u> | <u>\$1,272.65</u> |
| | 6 | \$4,622.08 | \$6,934.90 | | | \$136.00 | \$660.00 | \$6,274.90 |
| Anthem Traditional HMO | | | | | | | | |
| Single | 0 | | \$592.20 | | | | \$40.00 | \$552.20 |
| Two Party | 0 | | \$1,184.40 | | | | \$80.00 | \$1,104.40 |
| Family | 0 | | <u>\$1,539.72</u> | | | | <u>\$107.00</u> | <u>\$1,432.72</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| Anthem Select HMO | | | | | | | | |
| Single | 0 | | \$536.99 | | | | \$7.00 | \$529.99 |
| Two Party | 0 | | \$1,073.98 | | | | \$15.00 | \$1,058.98 |
| Family | 0 | | <u>\$1,396.17</u> | | | | <u>\$33.00</u> | <u>\$1,363.17</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| Health Net Salud y Mas | | | | | | | | |
| Single | 0 | | \$489.82 | | | | \$7.00 | \$482.82 |
| Two Party | 0 | | \$979.64 | | | | \$15.00 | \$964.64 |
| Family | 0 | | <u>\$1,273.53</u> | | | | <u>\$33.00</u> | <u>\$1,240.53</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| Health Net SmartCare | | | | | | | | |
| Single | 0 | | \$568.51 | | | | \$16.00 | \$552.51 |
| Two Party | 0 | | \$1,137.02 | | | | \$33.00 | \$1,104.02 |
| Family | 0 | | <u>\$1,478.13</u> | | | | <u>\$47.00</u> | <u>\$1,431.13</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| United HealthCare | | | | | | | | |
| Single | 0 | | \$521.01 | | | | \$7.00 | \$514.01 |
| Two Party | 0 | | \$1,042.02 | | | | \$15.00 | \$1,027.02 |
| Family | 0 | | <u>\$1,354.63</u> | | | | <u>\$33.00</u> | <u>\$1,321.63</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| Sharp Health Plan | | | | | | | | |
| Single | 0 | | \$538.59 | | | | \$7.00 | \$531.59 |
| Two Party | 0 | | \$1,077.18 | | | | \$15.00 | \$1,062.18 |
| Family | 0 | | <u>\$1,400.33</u> | | | | <u>\$33.00</u> | <u>\$1,367.33</u> |
| | 0 | | \$0.00 | | | | \$0.00 | \$0.00 |
| No coverage | | | | | | | | |
| Single | 0 | \$0.00 | \$0.00 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 |
| Two Party | 7 | \$0.00 | \$0.00 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 |
| Family | 5 | <u>\$0.00</u> | <u>\$0.00</u> | \$0.00 | | <u>\$0.00</u> | <u>\$0.00</u> | <u>\$0.00</u> |
| | 12 | \$0.00 | \$0.00 | | | \$0.00 | \$0.00 | \$0.00 |
| Monthly Premium | | \$372,149.68 | \$374,710.92 | | | | | |
| Less: Employee Contributions | | 25,544.00 | 28,377.00 | | | | | |
| Net Monthly Premium | | 346,605.68 | 346,333.92 | | | | | |
| Net Annual Premium | | 4,159,268.16 | 4,156,007.04 | (3,261.12) | -0.08% | | | |

Note: Costs for FY2013-14 will consist of 6 months at current 2013 premiums (\$346,605/month) and 6 months at new 2014 premium levels (\$346,333/month). Estimated premiums for FY2013-14 of \$4,157,628 are \$356,372 (7.89%) under the budgeted amount of \$4,514,000.

September 23, 2013
Prepared by: C. Spangenberg/R. Mori
Submitted by: K. Burton
Approved by: Paul Cook

ACTION CALENDAR

DYER ROAD WELLFIELD WELL NO. 2 REHABILITATION CONSTRUCTION AWARD

SUMMARY:

Dyer Road Wellfield (DRWF) Well No. 2 was constructed by IRWD in 1981 and is in need of rehabilitation to maintain production capacity and to improve reliability. Bids were received from two contractors for the rehabilitation of Well No. 2. Staff recommends that the Board:

- Authorize a budget increase in the amount of \$70,600, from \$706,000 to \$776,600, for Project 11693;
- Approve an Expenditure Authorization in the amount of \$344,500 for Project 11693; and
- Authorize the General Manager to execute a construction contract with Best Drilling & Pump, Inc. in the amount of \$249,545 for the rehabilitation of DRWF Well No. 2.

BACKGROUND:

DRWF Well No. 2 is located within Lillie King Park in the City of Santa Ana near the intersection of West Alton Avenue and Bradford Place as shown in Exhibit "A". DRWF Well No. 2 was drilled in 1981 and is the second oldest well in the DRWF. The well has not required rehabilitation at any point during its 34 year life. Last year, staff conducted a video survey of the well which revealed that the upper and lower sets of perforations were moderately plugged with biological and chemical iron oxide scale. About 36 feet of sediment at the bottom of the well was also observed. The original specific capacity of the well was 66.2 gpm/ft draw-down (dd). The most recent specific capacity ranged between 23 gpm/ft dd to 27 gpm/ft dd. In addition, the pump column piping and line shaft need to be replaced. A well rehabilitation program was prepared to address the biological and chemical plugging issues and to ensure that the production capacity is maintained at a level that supports maximum production of the DRWF.

Construction Award:

The project was advertised to a select list of six contractors including Bakersfield Well & Pump Co., Best Drilling & Pump, Inc., Cascade Pump (formerly Boart Longyear), Hydro Resources, South West Pump & Drilling, Inc., and Rottman Drilling Co. The bid opening was held September 5 with bids received from Best Drilling & Pump, Inc. and South West Pump & Drilling, Inc. The other invited contractors declined to bid due to their current work loads. Best Drilling & Pump, Inc. is the apparent low bidder with a bid amount of \$249,545. The engineer's estimate, prepared by Richard C. Slade Associates, LLC, was \$204,385. While the apparent low bid is higher than the engineer's estimate, the bid amount is comparable to the bid amounts received for the recently completed Well 110 rehabilitation, which averaged \$230,000. Based on the similarity between the well rehabilitation requirements for these two projects, staff believes the apparent low bid for this project is commensurate with the level of effort required to

rehabilitate the well. Staff also believes that recently approved increases in prevailing wage labor rates and increased chemical costs are the primary reasons that the apparent low bid exceeded the engineer's estimate. The Bid Summary is attached as Exhibit "B".

FISCAL IMPACTS:

Project 11693 (4326) is included in the FY 2013-14 Capital Budget. An Expenditure Authorization to fund the construction and construction phase services is requested as shown in the table below and in Exhibit "C". Richard C. Slade Associates, LLC is under contract to perform hydrogeologic construction phase services for the DRWF Well No. 2 in the amount of \$24,096.

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|--------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 11693 (4326) | \$706,000 | \$70,600 | \$776,600 | \$79,000 | \$344,500 | \$423,500 |

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed on March 28, 2013.

COMMITTEE STATUS:

This item was not reviewed by a Committee.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE A BUDGET INCREASE IN THE AMOUNT OF \$70,600, FROM \$706,000 TO \$776,600, FOR PROJECT 11693 (4326); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$344,500 FOR PROJECT 11693 (4326); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH BEST DRILLING & PUMP, INC. IN THE AMOUNT OF \$249,545 FOR THE REHABILITATION OF DYER ROAD WELLFIELD WELL NO. 2, PROJECT 11693 (4326).

LIST OF EXHIBITS:

- Exhibit "A" – Project Location
- Exhibit "B" – Bid Summary
- Exhibit "C" – Expenditure Authorization



Exhibit "A"- Well No. 2 Location Map



500 W. Alton Avenue, City of Santa Ana

EXHIBIT "B"

Bid Opening: Thursday September 5, 2013
2:00 p.m.

Irvine Ranch Water District Bid Summary For
Dyer Road Wellfield Well No. 2 Rehabilitation
PR 11693 (4326)

Entered By: J.K. Irey

| | | | | Engineer's Estimate | | 1 Best Drilling and Pump Colton, CA | | 2 Southwest Pump & Drilling Coachella, CA | |
|----------|--|-----|-------|---------------------|--------------|---|--------------|---|--------------|
| Item No. | Description | Qty | Unit | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| 1 | Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work and procure NPDES permit from RWQCB, Santa Ana Region. | 1 | LS | \$20,000.00 | \$20,000.00 | \$35,920.00 | \$35,920.00 | \$26,250.00 | \$26,250.00 |
| 2 | Brush well casing initially with nylon brush and bail sediment. | 16 | Hours | \$400.00 | \$6,400.00 | \$300.00 | \$4,800.00 | \$450.00 | \$7,200.00 |
| 3 | Perform Casing Inspection Thickness Measurement (CITM) survey of well casing. | 1 | LS | \$5,100.00 | \$5,100.00 | \$7,700.00 | \$7,700.00 | \$7,500.00 | \$7,500.00 |
| 4 | Conduct initial well development using "air-jetting" methods. | 1 | LS | \$10,000.00 | \$10,000.00 | \$15,000.00 | \$15,000.00 | \$24,780.00 | \$24,780.00 |
| 5 | Perform chemical treatment of well water using recommended treatment plan by Water Systems Engineering Inc. | 1 | LS | \$15,000.00 | \$15,000.00 | \$60,000.00 | \$60,000.00 | \$72,000.00 | \$72,000.00 |
| 6 | Perform mechanical development (airlifting and swabbing) of the well | 50 | Hours | \$400.00 | \$20,000.00 | \$325.00 | \$16,250.00 | \$495.00 | \$24,750.00 |
| 7 | Conduct treatment and discharge of mechanical development fluids via neutralization and blending and disposal of solids/sludges per specifications, including treatment and sampling for NPDES discharge compliance. | 1 | LS | \$7,500.00 | \$7,500.00 | \$10,500.00 | \$10,500.00 | \$27,850.00 | \$27,850.00 |
| 8 | Clear water column and provide downwell color video surveys of well casing. | 2 | LS | \$1,250.00 | \$2,500.00 | \$1,000.00 | \$2,000.00 | \$1,400.00 | \$2,800.00 |
| 9 | Mobilize, install and demobilize an electrical motor, temporary test pump and equipment and accessories | 1 | LS | \$15,000.00 | \$15,000.00 | \$8,000.00 | \$8,000.00 | \$22,700.00 | \$22,700.00 |
| 10 | Perform pumping development of the well including monitoring of water levels and measurement of sand content. | 48 | Hours | \$300.00 | \$14,400.00 | \$110.00 | \$5,280.00 | \$375.00 | \$18,000.00 |
| 11A | Perform step drawdown test including monitoring of water levels and measurements of sand content. | 12 | Hours | \$300.00 | \$3,600.00 | \$110.00 | \$1,320.00 | \$375.00 | \$4,500.00 |

Bid Opening: Thursday September 5, 2013
2:00 p.m.

Irvine Ranch Water District Bid Summary For
Dyer Road Wellfield Well No. 2 Rehabilitation
PR 11693 (4326)

Entered By: J.K. Irey

| | | | | Engineer's Estimate | | 1 Best Drilling and Pump Colton, CA | | 2 Southwest Pump & Drilling Coachella, CA | |
|----------|---|-----|------------------|---------------------|--------------|---|--------------|---|--------------|
| Item No. | Description | Qty | Unit | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| 11B | Perform 48-hour constant rate pumping (aquifer) test, including monitoring of water levels and measurement of sand content. | 48 | Hours | \$300.00 | \$14,400.00 | \$110.00 | \$5,280.00 | \$375.00 | \$18,000.00 |
| 12 | Perform flow meter (spinner) survey under dynamic pumping conditions | 1 | LS | \$3,000.00 | \$3,000.00 | \$3,700.00 | \$3,700.00 | \$7,200.00 | \$7,200.00 |
| 13 | Provide equipment to conduct depth-specific groundwater sampling. Sampling and analysis to be performed by the DISTRICT. | 4 | Per Sample | \$2,000.00 | \$8,000.00 | \$290.00 | \$1,160.00 | \$750.00 | \$3,000.00 |
| 14A | Clear water column and provide a final downwell video survey of the well casing. | 1 | LS | \$1,300.00 | \$1,300.00 | \$1,000.00 | \$1,000.00 | \$1,400.00 | \$1,400.00 |
| 14B | Perform spinner survey under static conditions. | 1 | LS | \$2,500.00 | \$2,500.00 | \$3,700.00 | \$3,700.00 | \$7,200.00 | \$7,200.00 |
| 15 | Conduct well disinfection and clean up site. | 1 | LS | \$2,500.00 | \$2,500.00 | \$5,000.00 | \$5,000.00 | \$16,500.00 | \$16,500.00 |
| 16 | Standby time with Active rig and crew as directed by DISTRICT | 16 | Hours | \$350.00 | \$5,600.00 | \$225.00 | \$3,600.00 | \$395.00 | \$6,320.00 |
| 17 | Standby time with Inactive rig and crew as directed by DISTRICT | 16 | Hours | \$250.00 | \$4,000.00 | \$175.00 | \$2,800.00 | \$300.00 | \$4,800.00 |
| 18A | Obtain pump motor, pump, and pump column from DISTRICT and re-install to depth of 270 ft | 1 | LS | \$12,000.00 | \$12,000.00 | \$5,000.00 | \$5,000.00 | \$12,640.00 | \$12,640.00 |
| 18B | Furnish new sections of 12-inch diameter Schedule 40 pipe pump column with but threads. | 29 | Per 9-foot joint | \$440.00 | \$12,760.00 | \$1,155.00 | \$33,495.00 | \$1,200.00 | \$34,800.00 |
| 18C | Furnish new section of 12-inch diameter Schedule 40 pipe (0.365-inch wall) pump column with but threads | 1 | Per 4-foot joint | \$200.00 | \$200.00 | \$700.00 | \$700.00 | \$850.00 | \$850.00 |
| 18D | Furnish new ASTM A582 Type 410L Stainless Steel shaft couplings. | 31 | EA | \$75.00 | \$2,325.00 | \$55.00 | \$1,705.00 | \$38.00 | \$1,178.00 |
| 18E | Furnish new line shaft, SAE 40 bronze, cutlets rubber backed bearing retainers. | 30 | EA | \$140.00 | \$4,200.00 | \$202.00 | \$6,060.00 | \$240.00 | \$7,200.00 |
| 18F | Furnish new Type 416 hardened Stainless Steel head shaft, 1.9375" by 140.5 inches long, equipped with coupling above box. | 1 | LS | \$1,200.00 | \$1,200.00 | \$575.00 | \$575.00 | \$1,995.00 | \$1,995.00 |
| 18G | Furnish new pre-lube fittings and connection to discharge head. | 1 | LS | \$500.00 | \$500.00 | \$750.00 | \$750.00 | \$1,832.00 | \$1,832.00 |

Bid Opening: Thursday September 5, 2013
2:00 p.m.

Irvine Ranch Water District Bid Summary For
Dyer Road Wellfield Well No. 2 Rehabilitation
PR 11693 (4326)

Entered By: J.K. Irey

| | | | | Engineer's Estimate | | 1 Best Drilling and Pump Colton, CA | | 2 Southwest Pump & Drilling Coachella, CA | |
|---|---|-----|-----------|---------------------|--------------|---|--------------|--|---------------------|
| Item No. | Description | Qty | Unit | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| 18H | Furnish leakage collection receptable and re-attach into existing steel drain line. | 1 | LS | \$400.00 | \$400.00 | \$750.00 | \$750.00 | \$2,720.00 | \$2,720.00 |
| 18I | Re-establish wiring and connection of permanent pump to DISTRICT electrical system, in the presence of DISTRICT electrician and conduct testing of the permanent pump for a period of 5 consecutive days. | 1 | LS | \$3,000.00 | \$3,000.00 | \$1,500.00 | \$1,500.00 | \$8,500.00 | \$8,500.00 |
| 18J | Allowance for additional costs for parts and/or materials during replacment of permanent pump. | 1 | Allowance | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| 18K | Provide for vibration monitoring and testing of permanent pump. | 1 | LS | \$2,000.00 | \$2,000.00 | \$1,000.00 | \$1,000.00 | \$12,500.00 | \$12,500.00 |
| Subtotal | | | | | | \$204,385.00 | | \$249,545.00 | \$391,965.00 |
| Adjustment (+ or -) | | | | | | \$0.00 | | \$0.00 | \$0.00 |
| TOTAL AMOUNT OF BID | | | | | | \$204,385.00 | | \$249,545.00 | \$391,965.00 |
| | | | | | | <u>Item Delivery Dates:</u> | | <u>Item Delivery Dates:</u> | |
| *South West Pump - Math Error on Item 18D - Bid calls out a Total cost of \$798 but Correct Amount is \$1,178 as noted here | | | | | | Air Jetting: 14 days | | Air Jetting: 14 days | |
| | | | | | | Pump Column: 14 days | | Pump Column: 21 days | |
| | | | | | | <u>Manufacturers:</u> | | <u>Manufacturers:</u> | |
| | | | | | | None Listed | | Item 5: Bilfinger Water Technologies/Johnson Screens | |
| | | | | | | | | Items 18A-18H: Custom Pipe | |
| | | | | | | <u>Subcontractors:</u> | | <u>Subcontractors:</u> | |
| | | | | | | Video/Spinner Survey: Pacific Survey | | Item 4: General Pump Company | |
| | | | | | | Air Burst: Air Burst Technology | | Items 3, 8, 12, 14A, 14B: Pacific Surveys | |

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: DRWF #2 & #5 REHABILITATION
EPMS Project No: 11693 **EA No:** 2
Oracle Project No: 4326
Project Manager: MORI, RICHARD
Project Engineer: SPANGENBERG, CARL
Request Date: September 11, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

| ID No. | Allocation % | Source of Funds |
|--------------|---------------|--------------------|
| 101 | 100.0 | REPLACEMENT FUND** |
| Total | 100.0% | |

Summary of Direct Cost Authorizations

| | |
|---|-----------|
| Previously Approved EA Requests: | \$79,000 |
| This Request: | \$344,500 |
| Total EA Requests: | \$423,500 |
| Previously Approved Budget: | \$706,000 |
| Budget Adjustment Requested this EA: | \$70,600 |
| Updated Budget: | \$776,600 |
| Budget Remaining After This EA | \$353,100 |

Comments: This project is a "Replacement Expense".

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|------------------|----------------------|---------------------|---------------------|------------------|------------------|-------|--------|
| ENGINEERING DESIGN - IRWD | 0 | 14,000 | 14,000 | 0 | 14,000 | 14,000 | 7/13 | 1/14 |
| ENGINEERING DESIGN - OUTSIDE | 0 | 40,000 | 40,000 | 0 | 40,000 | 40,000 | 7/13 | 1/14 |
| DESIGN STAFF FIELD SUPPORT | 0 | 10,000 | 10,000 | 0 | 10,000 | 10,000 | 7/13 | 1/14 |
| ENGINEERING - CA&I IRWD | 6,000 | 0 | 6,000 | 0 | 12,000 | 12,000 | 7/13 | 6/14 |
| ENGINEERING - CA&I OUTSIDE | 40,000 | 0 | 40,000 | 0 | 80,000 | 80,000 | 7/13 | 6/14 |
| CONSTRUCTION FIELD SUPPORT | 10,000 | 0 | 10,000 | 0 | 20,000 | 20,000 | 7/13 | 6/14 |
| CONSTRUCTION | 250,000 | 0 | 250,000 | 0 | 500,000 | 500,000 | 7/13 | 6/14 |
| LEGAL | 0 | 5,000 | 5,000 | 0 | 10,000 | 10,000 | 7/13 | 6/14 |
| WATER QUALITY | 0 | 10,000 | 10,000 | 0 | 20,000 | 20,000 | 7/13 | 6/14 |
| Contingency - 10.00% Subtotal | \$38,500 | \$0 | \$38,500 | \$70,600 | \$0 | \$70,600 | | |
| Subtotal (Direct Costs) | \$344,500 | \$79,000 | \$423,500 | \$70,600 | \$706,000 | \$776,600 | | |
| Estimated G/A - 170.00% of direct labor* | \$23,800 | \$61,200 | \$85,000 | \$0 | \$129,200 | \$129,200 | | |
| Total | \$368,300 | \$140,200 | \$508,500 | \$70,600 | \$835,200 | \$905,800 | | |
| Direct Labor | \$16,000 | \$34,000 | \$50,000 | \$0 | \$76,000 | \$76,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Carl Spangenberg
RKM

9/11/13

Department Director:

Kevin J. Benton

9/16/13

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$924,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

DS

September 23, 2013

Prepared by: M. Cortez

Submitted by: K. Burton *(KLB)*

Approved by: Paul Cook *(Paul Cook)*

ACTION CALENDAR

SAN JOAQUIN MARSH CAMPUS MOLD REMEDIATION EXPENDITURE AUTHORIZATION

SUMMARY:

This project addresses the mold remediation of the buildings at the San Joaquin Marsh Campus (Campus). The remediation of the Caretaker's Residence (green house) was completed in May 2013. Due to the complexity of mold remediation and exposure concerns encountered during remediation of the Caretaker's Residence, staff believes assistance is needed from an Occupational and Environmental Health and Safety consultant to provide oversight project management for the remainder of the project. Staff recommends that the Board approve an Expenditure Authorization in the amount of \$269,800.

BACKGROUND:

When a black growth was observed on the structural wood supports beneath the buildings at the Campus staff retained a mold inspection company, Guaranteed Property Inspection (Guaranteed) to evaluate the buildings. A site map of the Campus is attached as Exhibit "A". Samples from a measured area of the buildings were collected by Guaranteed and analyzed and compared to an index (Environmental Relative Moldiness Index, ERMI) developed by the Environmental Protection Agency. The resultant index describes the potential risk of mold growth. In general, mold was determined to be present in each of the buildings in concentrations indicating growth. In November 2012, the Board authorized the remediation of the Caretaker's Residence only, and staff was instructed to report back to the Board with the proposed next steps for the remediation of the remainder of the Campus.

Caretaker Residence Remediation:

Mold remediation of the Caretaker's Residence was completed in May 2013 by Certified Bio Services (Certified), at a cost of approximately \$65,000. The remediation included: converting the building's crawl space to a conditioned space with the installation of a vapor barrier, dehumidifier, extraction fan and a sump pump; removing the mold on the subfloor wood structural members using an abrasive process; sealing subfloor openings to the interior with a urethane spray; and cleaning of all interior surfaces and personal items. The items of work and the associated costs are reflected in Exhibit "B" and several before and after photographs of the improvements are included as Exhibit "C".

Upon completion of the remediation, Guaranteed performed post-remediation inspection of the completed work. Guaranteed recommended that additional cleaning be performed on a small area of interior wall, with a caveat that the stud area behind the wall may also need to be remediated. Staff had an inspection performed by a second company, Health Science Associates, to confirm the levels of mold. However, since there are no established state or federal standards for mold levels, the results from both companies could not be compared directly.

Staff ultimately instructed Certified to complete the additional work as recommended. Secondary mold testing results from both inspection companies showed that the mold levels were reduced to below EMRI indexes. At that point, staff determined that assistance was needed from an expert consultant to provide oversight project management for the remainder of the project.

Occupational and Environmental Health and Safety Consultant:

Maureen Sassoon, Ph.D. is a recognized consultant with experience in conducting mold assessments managing mold remediation projects for public agencies, and responding to employee or tenant issues and concerns; she does not have any affiliation with any remediation contractors. Recently, Dr. Sassoon gave a presentation at the Public Agency Safety Management Association's 2013 Annual Conference on the subject of investigating mold complaints and indoor air quality concerns. Staff requested her professional biography and current rates which are included as Exhibit "D". Based on her knowledge of mold remediation guidelines and her independent status, staff intends to enter into a Professional Services Agreement with Dr. Sassoon in the amount of \$20,000 to provide oversight project management, review and provide direction of the recommended remediation, and provide post-remediation occupancy approval.

Remediation of Remaining Buildings on Campus:

The remaining buildings to be remediated are the Marsh House (pink), Sea and Sage Offices (blue), Sea and Sage Audubon (yellow) and Duck Club and restrooms. Staff recommends a phased remediation for each building. Phase 1 will include any needed structural repair, crawl space mold removal, and under-floor urethane seal. Phase 2 will include building interior cleaning activities. Lastly, Phase 3 will convert the crawl space to a conditioned space using the Clean Space encapsulation system including a vapor barrier, dehumidifier, extraction fan and sump pump.

Staff will discuss the next steps of remediating the Campus, building by building, with the consultant to determine which phases are required for each of the remaining buildings. Since the Marsh House currently has damaged sub-flooring and flooring structural members, staff recommends that it be repaired and remediated next, followed by Sea and Sage Offices (blue), Sea and Sage Audubon (yellow), and Duck Club. Staff received a proposal of \$9,780, attached as Exhibit "E", from a general home contractor to repair the structural damage to the Marsh House. The estimated costs to remediate the remaining buildings if all three repair phases are required are as follows: Marsh House (pink) \$59,800, Sea and Sage Offices (blue) \$59,000, Sea and Sage Audubon House (yellow) \$50,000, Duck Club and Restroom Facility \$54,500. The total aggregate cost of the remainder of the Campus is \$223,300. The Cost Summary tables are attached as Exhibit "F".

FISCAL IMPACTS:

Project 11665 (4130) is included in the FY 2013-14 Capital Budget. Staff requests approval of an Expenditure Authorization as shown in the table below and in Exhibit "G".

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|--------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 11665 (4130) | \$369,600 | \$-0- | \$369,600 | \$80,000 | \$269,800 | \$349,800 |

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption was filed with the County of Orange Clerk's office on November 21, 2012 for all five sites within the San Joaquin Marsh Campus.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on September 10, 2013.

RECOMMENDATION:

THAT THE BOARD APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$269,800 FOR THE SAN JOAQUIN MARSH BUILDING CAMPUS MOLD REMEDIATION, PROJECT 11665 (4130).

LIST OF EXHIBITS:

- Exhibit "A" – San Joaquin Marsh Building Campus Site Map
- Exhibit "B" – Caretaker's Residence Mold Remediation Costs
- Exhibit "C" – Before and After Pictures of Caretaker's Residence Crawl Space
- Exhibit "D" – Professional Biography and Current Rates of Maureen Sassoon, Ph.D.
- Exhibit "E" – Marsh House Structural Repair Proposal
- Exhibit "F" – Aggregate Remediation Cost for Campus
- Exhibit "G" – Expenditure Authorization

EXHIBIT "A"

IRWD CARETAKER'S HOUSE (GREEN)

SEA AND SAGE (BLUE)

MARSH HOUSE (PINK)

AUDUBON HOUSE (YELLOW)

LEARNING CENTER (SLAB ON GRADE)

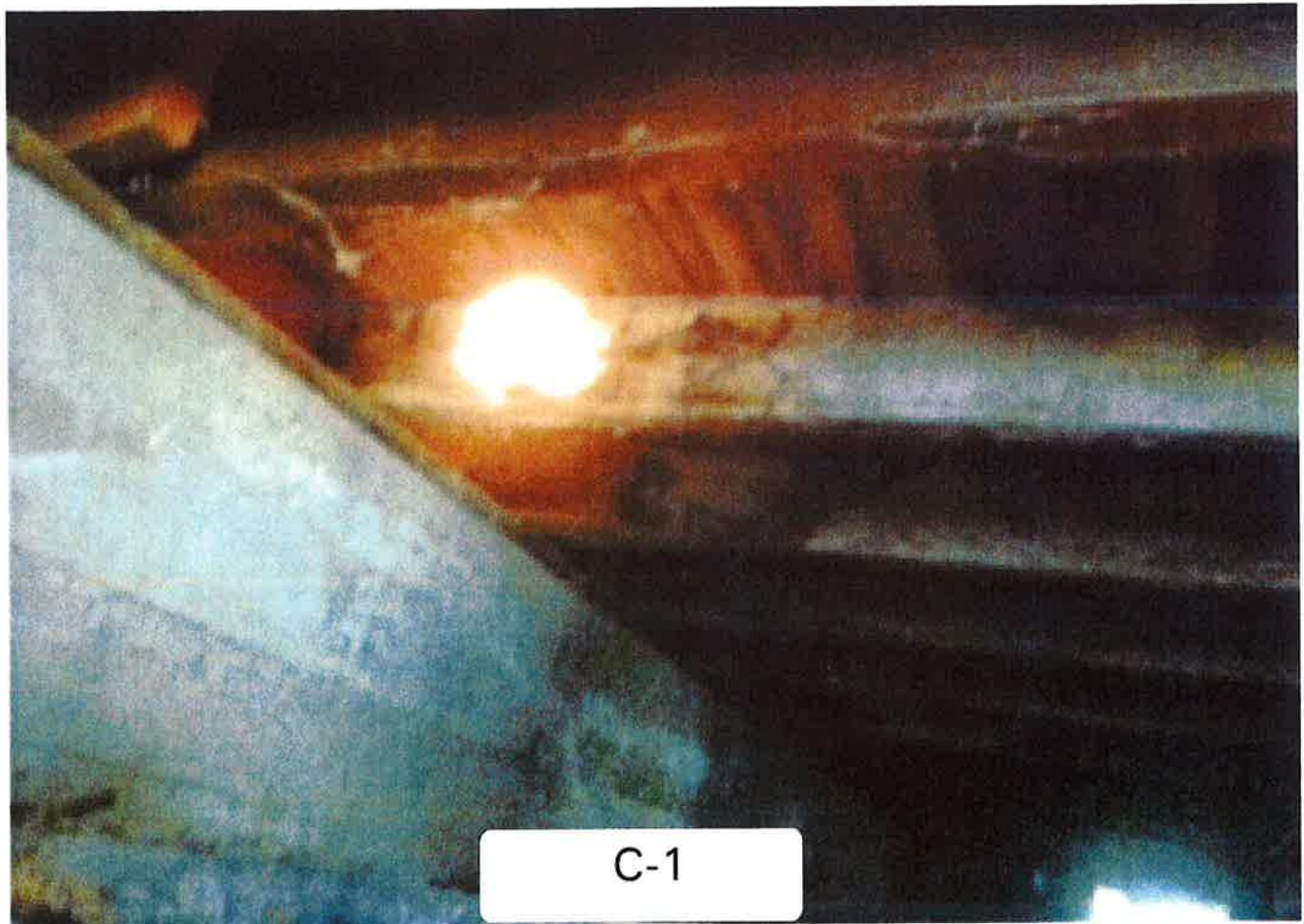
DUCK CLUB



EXHIBIT "B"
Caretaker's Residence (Green)
45 Riparian View
Actual Mold Remediation Costs

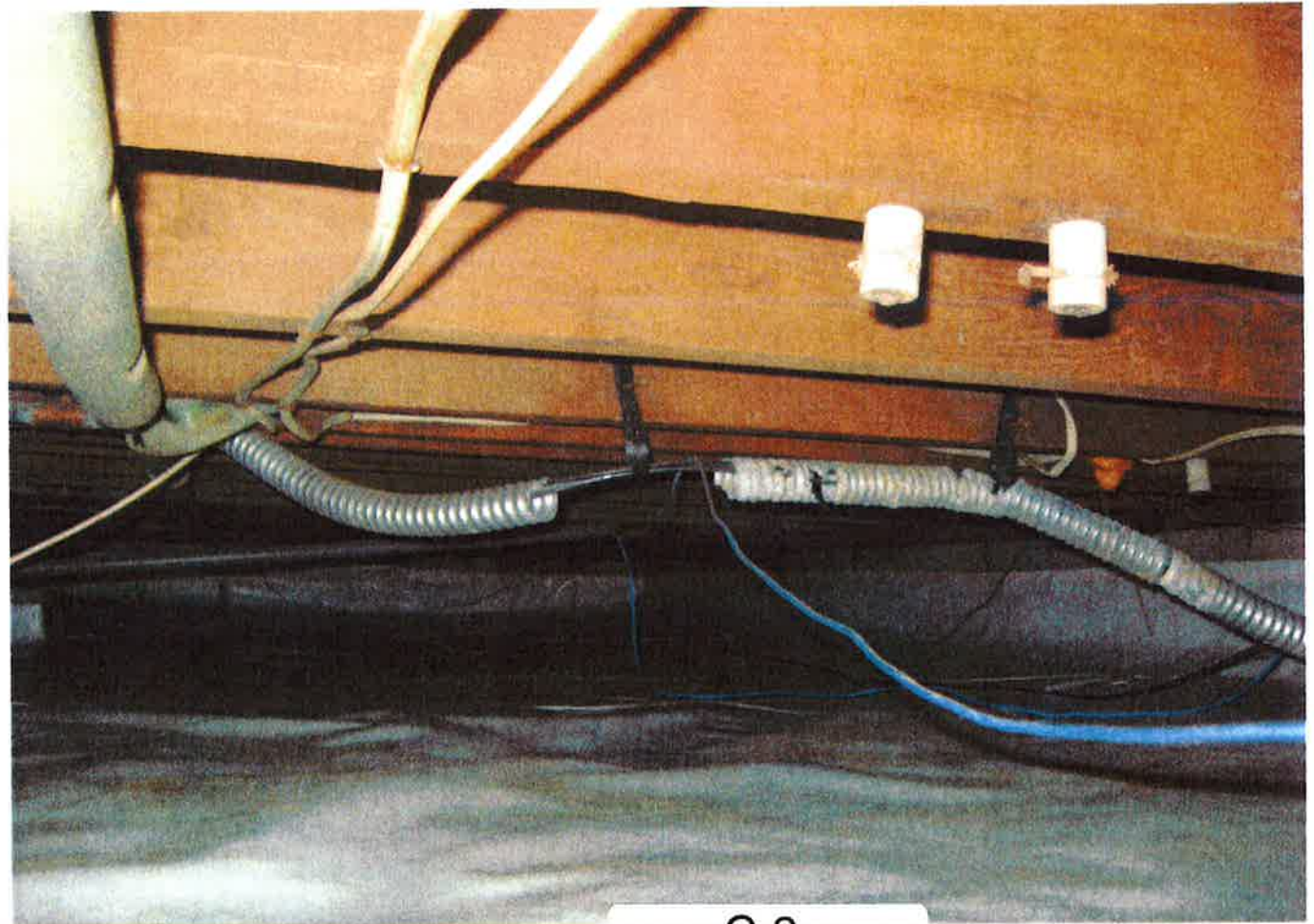
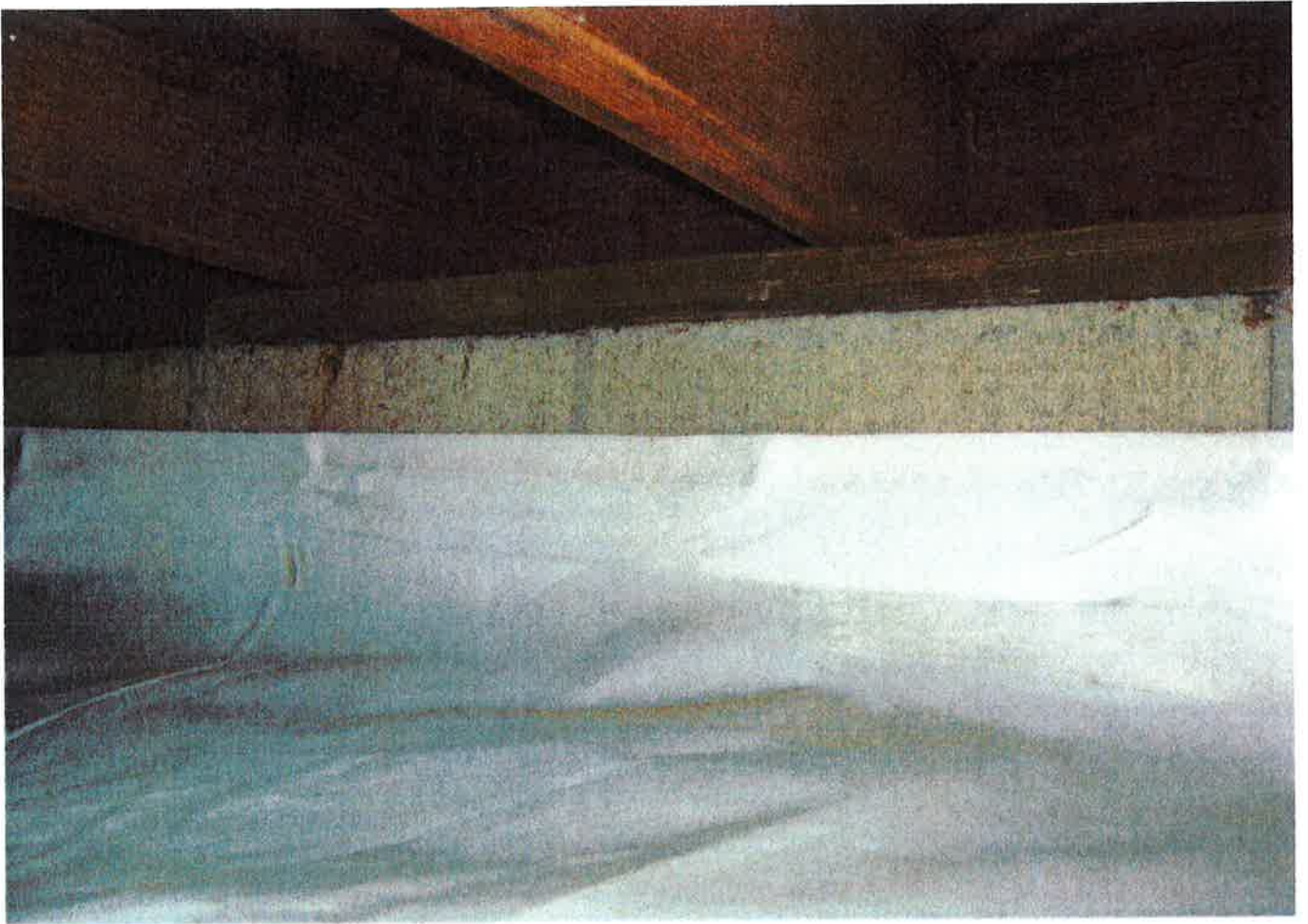
| Crawl Space Improvements | Phase 1 | Phase 2 | Phase 3 |
|--|-----------|-----------|-----------|
| Convert crawl space to a conditioned space using the CleanSpace crawl space encapsulation system, e.g. vapor barrier, dehumidifier, extraction fan, sump pump. | | | \$ 14,300 |
| Mold remediation of wood structure members using abrasive process, i.e. dry ice. | \$ 12,800 | | |
| Seal subfloor openings to interior with a spray-on urethane product. | \$ 5,300 | | |
| Interior Remediation | | | |
| Three-step cleaning of all interior surfaces (walls, excluding ceilings) and personal items following Clean Trust standards, e.g. HEPA vacuum, Wet Wipe and HEPA vacuum. | | \$ 22,455 | |
| Remediation of interior cabinets, wall cabinet, hall closet. | | \$ 965 | |
| HVAC System Improvements, e.g. filters. | | \$ 80 | |
| CCO 1: add'l remediation of dining room and hallway cabinet | | \$ 5,500 | |
| Miscellaneous Work | | | |
| 350 LF Exterior Fencing with screening - 6 month rental | \$ 1,250 | | |
| Air Purifiers with HEPA Filters | \$ 1,000 | | |
| Post Remediation Inspection | | | |
| Guaranteed Property Inspection | \$ 150 | \$ 150 | \$ 200 |
| Health Sciences Associates | \$ 150 | \$ 150 | \$ 200 |
| Total Cost per Phase | \$ 20,650 | \$ 29,300 | \$ 14,700 |
| Total Cost All Phases | \$ 64,650 | | |

Exhibit "C"



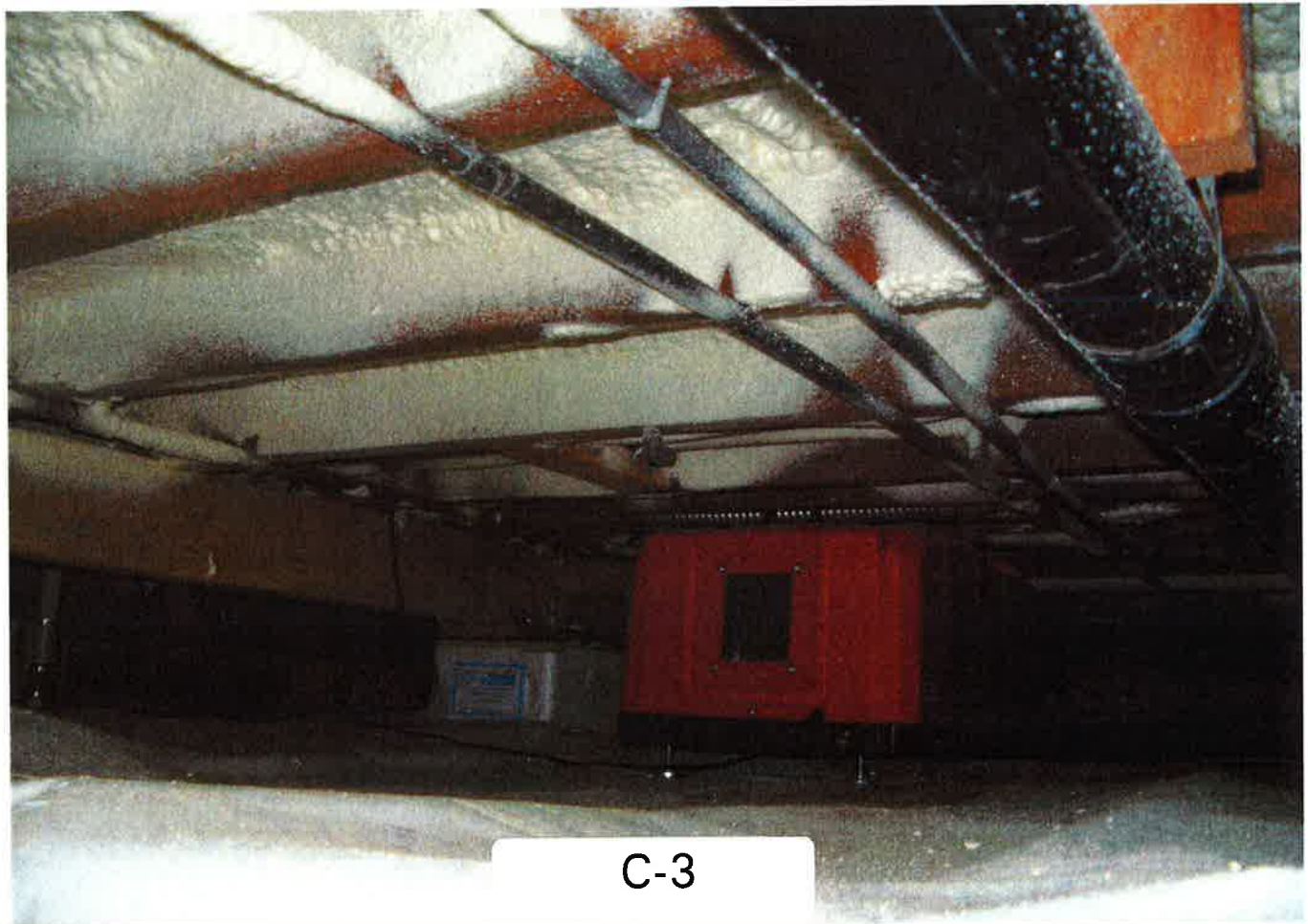
C-1

ORIGINAL EXISTING CONDITION



MOLD REMOVED

C-2



C-3

UNDER-FLOOR URETHANE FOAM SEAL

EXHIBIT "D"

Dr. Maureen Sassoon, MS, MPH, CIH
providing environmental & occupational health and safety services

Dr. Maureen Sassoon provides industrial hygiene, health and safety consulting and training services. Prior to commencing her own business in 1988, Maureen was an industrial hygiene and loss control specialist/consultant with Cal-Surance, for 7 years. Earlier, Maureen was the H&S Coordinator for Johnson Controls-Battery Division, California; a consulting industrial hygienist for an analytical laboratory; a safety officer at CSU, Northridge, and; she worked for Kaiser Permanente in their Physical Medicine/Physical Therapy Department.

As Maureen's areas of expertise, educational and professional achievements are numerous, only a few of her professional achievements are listed below. Please call her for additional information, references and/or to discuss your company's management, health and safety concerns.

- * Doctor of Public Administration (DPA)
- * Master of Science: Environmental & Occupational Health (MS)
- * Master of Public Health: Health Education (MPH)
- * Certified Industrial Hygienist # 5203 (CIH)
- * Registered Environmental Health Specialist # 4590 (REHS)
- * Registered Environmental Assessor (discontinued by CA 2012)
- * Hazardous Materials Course Instructor, for CSTI
- * Certified Asbestos Consultant # 92-0563
- * California Department of Public Health, Lead Certification # 279
- * FEMA IS – 100, 200, 300, 700, 800.A
- * State of California Fire & Casualty Broker/Agent License # 0F99000
- * Certified Ergonomics Assessment Specialist, Back School of Atlanta
- * Deputy Sheriff (Lt.Reserve: Patrol, Narcotics and Homeland Security)

po box 2028
palos verdes peninsula
california, 90274
310/544-2912
msassoon@cox.net

MAUREEN SASSOON, DPA, MS, MPH, CIH
OCCUPATIONAL & ENVIRONMENTAL SERVICES

- * OSHA Construction Safety Course 10 and 30 Hour Class Instructor
- * NAVFAC/Army Corps of Engineers EM 385-1-1 40 Hour Class Instructor
- * HAZWOPER 8, 24, 32 and 40 Hour Class Instructor
- * HazMat Business Plan, Inventory and Community Right-to-Know
- * Hazard Communication Development, Implementation & Training
- * Phase I - III Environmental Audits & Site Safety Plans
- * OSHA Citation Correction Procedures

- * Health & Safety Related Training, Program Development & Inspections
 - Respiratory Protection & Personal Protective Equipment
 - Construction Safety
 - Confined Space Entry
 - Noise Exposure/Hearing Conservation
 - Forklift Safety & Performance Evaluations
 - Asbestos Awareness/O&M
 - Office Safety
 - Facility Inspections, Safety & Security
 - Bloodborne Pathogens and ATDs
 - Back & Knee Injury Prevention
 - First Responder Awareness (FRA) and Operational (FRO and FRO-LAW)
 - Hazardous Waste Clean-up (HAZWOPER)
 - Ergonomics
 - Food Handling/Storage/Illness Prevention
 - Wellness Programs
 - Decision Driving
 - Special Programs for Public Works/Parks/Crime Labs/Police Ranges

- * Industrial Hygiene Services:
 - Asbestos Air & Bulk Sampling
 - Lead-Based Paint Air & Bulk Sampling
 - Employee Exposure Monitoring
 - Sound Level Surveys
 - Indoor Air Quality Investigations/Mold
 - Expert Witness
 - Fume Hood Velocity Surveys
 - Environmental Investigations & Surveys

FEE AGREEMENT FOR
OCCUPATIONAL & ENVIRONMENTAL HEALTH & SAFETY
CONSULTING SERVICES

DR. MAUREEN SASSOON

310/544-2912

Certified Industrial Hygiene Fees:

1. General industrial hygiene services (excluding legal cases) are charged at a rate of \$150/hour, portal-to-portal, with a 4-hour minimum. Additional charges, such as but not limited to: equipment and laboratory fees, printing and duplicating fees, data base fees (i.e., associated with Phase I research and the like), and travel related fees (i.e., airfare, hotel, car rental) are charged to the client per associated incurred cost, if the client pays them direct or up front, otherwise there is a 10% mark-up.

Invoices are submitted monthly, for services rendered, and are expected to be paid in-full, within 30 days of the invoice date. Account balances not paid within 30 days are subject to a 1.5% monthly service charge, on the remaining balance.

2. General office work, report writing and research are charged at \$150/hour.

3. Legal Cases, including preparation, document review, research, industrial hygiene surveys and all other related work including Court time (with or without testimony) and Depositions are charged at a rate of \$425/hour, with a 4-hour minimum, plus expenses if outside the greater Los Angeles area.

4. Deposition and Court fees are due at the beginning of each day.

If you agree to these terms and conditions, please sign and date at the bottom and reply by USPS to Dr. Maureen Sassoon at PO Box 2028, PVP, CA 90274.

Company: _____

(Signature) Date _____

(Print Name) Title _____

(Aug. 2012)

EXHIBIT "E"

NEW DIMENSION *general construction*

751 S. Weir Canyon Road, Suite 157, Anaheim Hills, CA 92807
 cell 714.348.8081 ▲ voice/fax 714.282.9468
 License 865303 ▲ kdahlberg@newdimension.biz

Proposal

| | |
|----------|------------|
| Date | Estimate # |
| 6/7/2013 | 1387 |

| Name / Address |
|--|
| Irvine Ranch Water District 3512 Michelson Dr Irvine, Ca 92612 |

| Location |
|-------------------|
| Marsch house site |

| Description | Qty | Cost | Total |
|---|-----|--------------|-------------------|
| <p>Material and Labor Supplied by New Dimension to demo moisture damaged wood subflooring and floor joists in a 12'X 22'X area and repair 12' section of exterior wood siding and associated framing includes:</p> <ol style="list-style-type: none"> 1. Remove existing counter/sink and set aside for reinstallation 2. Demo existing wood sub floor in the are as close to existing walls as possible. Also remove damaged 2'X6" floor joists in the area. Includes haul off and disposal via normal disposal means 3. Replace up to qty-15 2'X6"X12' DF2 floor joists with new hangers 4. Install blocking at seams between new and old wood sub floor. Install new plywood subfloor screwed into new joists and new blocking 5. Install new VCT tiles in the area matching existing as close as possible 6. Reinstall sink/counter top and reconnect the plumbing in same location 7. Repair/replace base boards and paint as required 8. Remove water damaged exterior siding approximate 12' long section on the end of the area 9. Sister in new wood framing members to strengthen and damaged ones up qty of 10. 10. Install new exterior grade siding with trim and new water barrier in this area 11. Paint the one 12' long end section, matching existing as best as possible <p>Note: This proposal does not include replacing repairing any major structural items other than the above stated 2"X6" floor joists and may require additional costs</p> | 1 | 9,780.00 | 9,780.00 |
| | | Total | \$9,780.00 |

Acceptance Signature _____

EXHIBIT "F"
SJM Building Campus
Mold Remediation Cost Summary

| Building | Address | Cost | | | Total |
|---|------------------|-----------|----------|----------|-----------|
| | | Phase 1 | Phase 2 | Phase 3 | |
| Caretaker's Residence (Green) - Actual Construction Costs (for reference) | 45 Riparian View | \$20,650 | \$29,300 | \$14,700 | \$64,650 |
| Sea and Sage Audubon (Yellow) | 5 Riparian View | \$19,000 | \$15,500 | \$15,500 | \$50,000 |
| Duck Club and Restrooms | 15 Riparian View | \$18,500 | \$15,500 | \$20,500 | \$54,500 |
| Sea and Sage (Blue) | 25 Riparian View | \$23,000 | \$20,500 | \$15,500 | \$59,000 |
| Marsh House (Pink) | 35 Riparian View | \$28,800 | \$15,500 | \$15,500 | \$59,800 |
| | | | | | |
| Cost Estimate for Remediation of Remaining SJM Building Campus | | \$89,300 | \$67,000 | \$67,000 | \$223,300 |
| | | | | | |
| Cost Estimate for Remediating Entire SJM Building Campus | | \$109,950 | \$96,300 | \$81,700 | \$287,950 |

Phase 1: Structural repairs, construction fence, crawl space mold removal, under-floor urethane seal, visual testing.

Phase 2: Clean interior surfaces (excluding ceiling) and personal items. No air testing.

Phase 3: Install "Clean Space" improvements.

Marsh House (Pink)
35 Riparian View
Estimated Mold Remediation Costs

| | Phase 1 | Phase 2 | Phase 3 |
|---|------------------|------------------|------------------|
| Floor Replacement Work | | | |
| (New Dimension General Construction) | | | |
| Material and labor to demolish and reconstruct moisture damaged wood subflooring and floor joists in a 12-ft by 22-ft area and repair a 12-ft section of exterior wood siding and framing. See attached cost quote. | \$ 9,800 | | |
| Crawl Space Improvements | | | |
| Mold remediation of wood structure members using abrasive process, i.e. dry ice. | \$ 13,000 | | |
| Seal subfloor openings to interior with a spray-on urethane product. | \$ 5,000 | | |
| Convert crawl space to a conditioned space using the CleanSpace crawl space encapsulation system, i.e. vapor barrier, dehumidifier, extraction fan, sump pump. | | | \$ 15,000 |
| Interior Remediation | | | |
| Three-step cleaning of all interior surfaces (walls, excluding ceilings) and personal items following Clean Trust standards, e.g. HEPA vacuum, Wet Wipe and HEPA vacuum. | | \$ 15,000 | |
| Miscellaneous Work | | | |
| 350 LF Exterior Fencing with screening - \$1,200/6 month rental | \$ 400 | | |
| HVAC System Improvements, e.g. filters. | \$ 100 | | |
| Post Remediation Inspection | | | |
| Inspection | \$ 500 | \$ 500 | \$ 500 |
| Total Cost per Phase | \$ 28,800 | \$ 15,500 | \$ 15,500 |
| Total Cost All Phases | \$ 59,800 | | |

Sea and Sage (Blue)
25 Riparian View
Estimated Mold Remediation Costs

| | Phase 1 | Phase 2 | Phase 3 |
|--|------------------|------------------|------------------|
| Crawl Space Improvements | | | |
| Mold remediation of wood structure members using abrasive process, i.e. dry ice. | \$ 13,000 | | |
| Seal subfloor openings to interior with a spray-on urethane product. | \$ 5,000 | | |
| Convert crawl space to a conditioned space using the CleanSpace crawl space encapsulation system, i.e. vapor barrier, dehumidifier, extraction fan, sump pump. | | | \$ 15,000 |
| Interior Remediation | | | |
| Three-step cleaning of all interior surfaces (walls, excluding ceilings) and personal items following Clean Trust standards, e.g. HEPA vacuum, Wet Wipe and HEPA vacuum. | | \$ 20,000 | |
| Miscellaneous Work | | | |
| Trailer Rental (2 months for Trudy) | \$ 4,000 | \$ 4,000 | |
| 350 LF Exterior Fencing with screening - \$1,200/6 month rental | \$ 400 | | |
| HVAC System Improvements, e.g. filters. | \$ 100 | | |
| Post Remediation Inspection | | | |
| Inspection | \$ 500 | \$ 500 | \$ 500 |
| Total Cost per Phase | \$ 23,000 | \$ 20,500 | \$ 15,500 |
| Total Cost All Phases | \$ 59,000 | | |
| | | | |
| | | | |
| | | | |

Sea and Sage Audubon House (Yellow)

5 Riparian View

Estimated Mold Remediation Cost

| | Phase 1 | Phase 2 | Phase 3 |
|--|-----------|-----------|-----------|
| Crawl Space Improvements | | | |
| Mold remediation of wood structure members using abrasive process, i.e. dry ice. | \$ 13,000 | | |
| Seal subfloor openings to interior with a spray-on urethane product. | \$ 5,000 | | |
| Convert crawl space to a conditioned space using the CleanSpace crawl space encapsulation system, i.e. vapor barrier, dehumidifier, extraction fan, sump pump. | | | \$ 15,000 |
| Interior Remediation | | | |
| Three-step cleaning of all interior surfaces (walls, excluding ceilings) and personal items following Clean Trust standards, e.g. HEPA vacuum, Wet Wipe and HEPA vacuum. | | \$ 15,000 | |
| Miscellaneous Work | | | |
| Trailer Rental (2 months for Trudy. Schedule concurrent remediation of Sea and Sage Audubon and Sea and Sage buildings together. | | \$ - | |
| 350 LF Exterior Fencing with screening - 6 month rental | \$ 400 | | |
| HVAC System Improvements, e.g. filters. | \$ 100 | | |
| Post Remediation Inspection | | | |
| Inspection | \$ 500 | \$ 500 | \$ 500 |
| Total Cost per Phase | \$ 19,000 | \$ 15,500 | \$ 15,500 |
| Total Cost All Phases | \$ 50,000 | | |

Duck Club
15 Riparian View
Estimated Mold Remediation Costs

| | Phase 1 | Phase 2 | Phase 3 |
|--|-----------|-----------|-----------|
| Crawl Space Improvements | | | |
| Mold remediation of wood structure members using abrasive process, i.e. dry ice. | \$ 10,000 | | |
| Seal subfloor openings to interior with a spray-on urethane product. | \$ 7,500 | | |
| Convert crawl space to a conditioned space using the CleanSpace crawl space encapsulation system, i.e. vapor barrier, dehumidifier, extraction fan, sump pump. | | | \$ 20,000 |
| Interior Remediation | | | |
| Three-step cleaning of all interior surfaces (walls, excluding ceilings) and personal items following Clean Trust standards, e.g. HEPA vacuum, Wet Wipe and HEPA vacuum. | | \$ 15,000 | |
| Miscellaneous Work | | | |
| 350 LF Exterior Fencing with screening - \$1,200/6 month rental | \$ 400 | | |
| HVAC System Improvements, e.g. filters. | \$ 100 | | |
| Post Remediation Inspection | | | |
| Inspection | \$ 500 | \$ 500 | \$ 500 |
| Total Cost per Phase | \$ 18,500 | \$ 15,500 | \$ 20,500 |
| Total Cost All Phases | \$ 54,500 | | |

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: SJM BUILDING CAMPUS MOLD REMEDIATION
 EPMS Project No: 11665 EA No: 2
 Oracle Project No: 4130
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: CORTEZ, MALCOLM
 Request Date: August 27, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

| ID No. | Allocation % | Source of Funds |
|--------------|---------------|------------------------|
| 101 | 50.0 | REPLACEMENT FUND** |
| 112 | 1.8 | BONDS YET TO BE SOLD** |
| 113 | 2.2 | BONDS YET TO BE SOLD** |
| 115 | 3.1 | CAPITAL FUND |
| 121 | 6.4 | BONDS YET TO BE SOLD** |
| 130 | 5.0 | BONDS YET TO BE SOLD** |
| 135 | 8.1 | CAPITAL FUND |
| 140 | 1.7 | BONDS YET TO BE SOLD** |
| 150 | 13.1 | BONDS YET TO BE SOLD** |
| 153 | 1.4 | BONDS YET TO BE SOLD** |
| 154 | .6 | BONDS YET TO BE SOLD** |
| 161 | 3.4 | BONDS YET TO BE SOLD** |
| 182 | 1.2 | BONDS YET TO BE SOLD** |
| 184 | 1.2 | BONDS YET TO BE SOLD** |
| 186 | .4 | BONDS YET TO BE SOLD** |
| 188 | .4 | BONDS YET TO BE SOLD** |
| Total | 100.0% | |

Summary of Direct Cost Authorizations

| | |
|---------------------------------------|------------------|
| Previously Approved EA Requests: | \$80,000 |
| This Request: | \$269,800 |
| Total EA Requests: | \$349,800 |
| Previously Approved Budget: | \$369,600 |
| Budget Adjustment Requested this EA: | \$0 |
| Updated Budget: | \$369,600 |
| Budget Remaining After This EA | \$19,800 |

Comments:

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|------------------|----------------------|---------------------|---------------------|------------------|------------------|-------|--------|
| ENGINEERING - PLANNING OUTSIDE | 0 | 0 | 0 | 0 | 0 | 0 | 1/10 | 10/10 |
| ENGINEERING DESIGN - IRWD | 0 | 0 | 0 | 0 | 5,000 | 5,000 | 11/12 | 7/13 |
| ENGINEERING DESIGN - OUTSIDE | 0 | 0 | 0 | (8,000) | 10,000 | 2,000 | 11/12 | 7/13 |
| DESIGN STAFF FIELD SUPPORT | 0 | 0 | 0 | 0 | 2,000 | 2,000 | 11/12 | 7/13 |
| ENGINEERING - CA&I IRWD | 0 | 0 | 0 | 0 | 5,000 | 5,000 | 11/12 | 7/13 |
| ENGINEERING - CA&I OUTSIDE | 25,300 | 2,700 | 28,000 | 18,000 | 10,000 | 28,000 | 11/12 | 12/13 |
| CONSTRUCTION FIELD SUPPORT | 0 | 0 | 0 | 0 | 2,000 | 2,000 | 11/12 | 12/13 |
| CONSTRUCTION | 220,000 | 70,000 | 290,000 | (10,000) | 300,000 | 290,000 | 11/12 | 12/13 |
| LEGAL | 0 | 0 | 0 | 0 | 2,000 | 2,000 | 11/12 | 12/13 |
| Contingency - 10.00% Subtotal | \$24,500 | \$7,300 | \$31,800 | \$0 | \$33,600 | \$33,600 | | |
| Subtotal (Direct Costs) | \$269,800 | \$80,000 | \$349,800 | \$0 | \$369,600 | \$369,600 | | |
| Estimated G/A - 170.00% of direct labor* | \$0 | \$0 | \$0 | \$0 | \$23,800 | \$23,800 | | |
| Total | \$269,800 | \$80,000 | \$349,800 | \$0 | \$393,400 | \$393,400 | | |
| Direct Labor | \$0 | \$0 | \$0 | \$0 | \$14,000 | \$14,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

Malcolm Cortez

9/4/13

Department Director:

Ravin L. Benton

9/4/13

Finance:

[Signature]

9/5/13

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$402,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

September 23, 2013

Prepared by: S. Malloy

Submitted by: K. Burton

Approved by: Paul Cook

ACTION CALENDAR

MICHELSON WATER RECYCLING PLANT PHASE 2 EXPANSION AND FLOOD PROTECTION IMPROVEMENTS VARIANCES

SUMMARY:

The Michelson Water Recycling Plant (MWRP) Phase 2 Expansion and Flood Protection Improvements are currently being constructed by J. R. Filanc Construction Company (Filanc). Due to the construction extending from October 31, 2013 to March 15, 2014, variances for two engineering consultants are required. Staff recommends the Board:

- Authorize the General Manager to execute Variance No. 5 in the amount of \$770,800 with HDR Engineering, Inc. (HDR) for supplemental construction phase services associated with testing, start-up, and road design for the MWRP Phase 2 Expansion and Flood Protection Improvements; and
- Authorize the General Manager to execute Variance No. 7 in the amount of \$247,073 with Delta Systems Engineering (Delta) for supplemental phase services associated with testing, start-up, and troubleshooting for the MWRP Phase 2 Expansion.

BACKGROUND:

Construction of the MWRP Phase 2 Expansion and Flood Protection Improvements project was awarded to Filanc in July 2009 in the amount of \$87,479,450. This project will expand the recycled water production capacity of MWRP to 28 million gallons per day and protect MWRP from flooding of San Diego Creek. A Project Overview Diagram of the MWRP Phase 2 Expansion is attached as Exhibit "A".

The August 2013 Quarterly Report stated that the project has two remaining critical paths: (1) construction of the roadways within MWRP and on Riparian View; and (2) testing and start-up of the membrane bioreactors (MBR). The estimated completion of the roadways is December 2, 2013. The estimated completion of the MBR is February 18, 2014. The current contractual completion date is October 31, 2013. Because the new completion date is projected to extend beyond October 31, 2013, variances for HDR and Delta are required.

The activities associated with the roadways critical path include: (1) South Influent Interceptor tie-in; (2) Motor Control Center (MCC) - 301 installation which controls the existing primary sedimentation tanks; and (3) roadway construction within MWRP and on Riparian View. The South Influent Interceptor tie-in was recently completed on August 22.

The activities associated with the MBR critical path include: (1) testing and start-up of the magnesium hydroxide and methanol chemical facilities; (2) testing and start-up of primary effluent pump station; (3) testing and start-up of the MBR facilities; (4) ultraviolet disinfection validation testing of MBR permeate; and (5) associated punchlist items.

The testing and start-up of treatment trains, especially the MBR facility, are complex, intricate, and labor-intensive. There are several tests required for each treatment train, each of which requires significant coordination between IRWD staff, consultants, the equipment manufacturers, and Filanc. On earlier testing and start-up of other treatment trains, such as the headworks and the primary sedimentation tanks, unplanned events, such as overheating of the gate actuators at the headworks and motor failures on the primary sedimentation tanks, occurred which required even more coordination time by all parties involved.

HDR Variance No. 5:

HDR has been providing construction phase services since the beginning of the project. HDR is requesting additional authorization mainly due to (1) the re-design of the roadways within MWRP and Riparian View; and (2) staffing needs related to testing and start-up of the MBR and related facilities.

The site work and roadways within MWRP and on Riparian View were re-designed because of several factors. Several conduits and pipelines were discovered to have very minimal backfill. Also, some small underground pipelines were required to be re-aligned. Riparian View had to be redesigned because of differing surveying data between the Phase 2 Expansion and the flood protection improvements designs. Additionally, the paving and roadways were modified to accommodate the needs of MWRP Operations, which were different or changed from the time of the original design.

HDR has diligently worked with IRWD staff to meet the testing and start-up staffing needs as each treatment train comes on-line. HDR worked closely with staff, the manufacturers, and Filanc to complete the required tests. HDR will continue to (1) review testing protocols; (2) eyewitness the required tests; (3) prepare and maintain deficiency lists requiring immediate correction by Filanc, (4) prepare punchlists for corrective actions to be completed by Filanc before project acceptance; and (5) attend meetings to resolve various testing-related issues.

Other services that HDR has provided include on-site engineering support, attendance of meetings to resolve project-related issues, and review of change requests cost proposals.

Variance No. 5 in the amount of \$770,800, attached as Exhibit "B", is for services described above. HDR will optimize its staffing so that, if there is down time between testing and start-up, its staff is assigned duties outside of Phase 2.

Delta Variance No. 7:

Delta has been providing SCADA programming and start-up phase services since the start of the project. Delta will provide staff to meet the remaining testing and start-up requirements. These services include any changes to SCADA programming and troubleshooting programming bugs as they arise. Delta's budget allows for the SCADA programmers to be available to the project as requested by staff, but also allows the flexibility for Delta to assign their programmers to outside projects should there be down time between testing and start-up activities.

Variance No. 7 in the amount of \$247,073, attached as Exhibit "C", is to provide the services described above.

FISCAL IMPACTS:

The MWRP Phase 2 Expansion and Flood Protection Improvements, Projects 20214 (1599), 20542 (1150), 30214 (1706), and 30542 (1118), are included in the FY 2013-14 Capital Budget. The existing budgets and Expenditure Authorizations are sufficient to fund the variances.

ENVIRONMENTAL COMPLIANCE:

The Michelson Water Recycling Plant Phase 2 Expansion and Flood Protection Improvements, Projects 20214 (1599), 20542 (1706), 30214 (1150), and 30542 (1118) are subject to the California Environmental Quality Act (CEQA) and in conformance with the California Code of Regulations Title 14, Chapter 3, Article 7, an Environmental Impact Report, SCH # 2005051174, was certified by the lead agency on February 27, 2006.

COMMITTEE STATUS:

This item was reviewed by the Engineering and Operations Committee on September 10, 2013.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 5 IN THE AMOUNT OF \$770,800 WITH HDR ENGINEERING, INC. FOR SUPPLEMENTAL CONSTRUCTION PHASE SERVICES FOR TESTING, START-UP, AND ROAD DESIGN FOR THE MWRP PHASE 2 EXPANSION, PROJECTS 20214 (1599) AND 30214 (1706), AND FLOOD PROTECTION IMPROVEMENTS, PROJECTS 20542 (1150) AND 30542 (1118); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE VARIANCE NO. 7 IN THE AMOUNT OF \$247,073 WITH DELTA SYSTEMS ENGINEERING FOR SUPPLEMENTAL PHASE SERVICES ASSOCIATED WITH TESTING, START-UP, AND TROUBLESHOOTING FOR THE MWRP PHASE 2 EXPANSION, PROJECTS 20214 (1599) AND 30214 (1706).

LIST OF EXHIBITS:

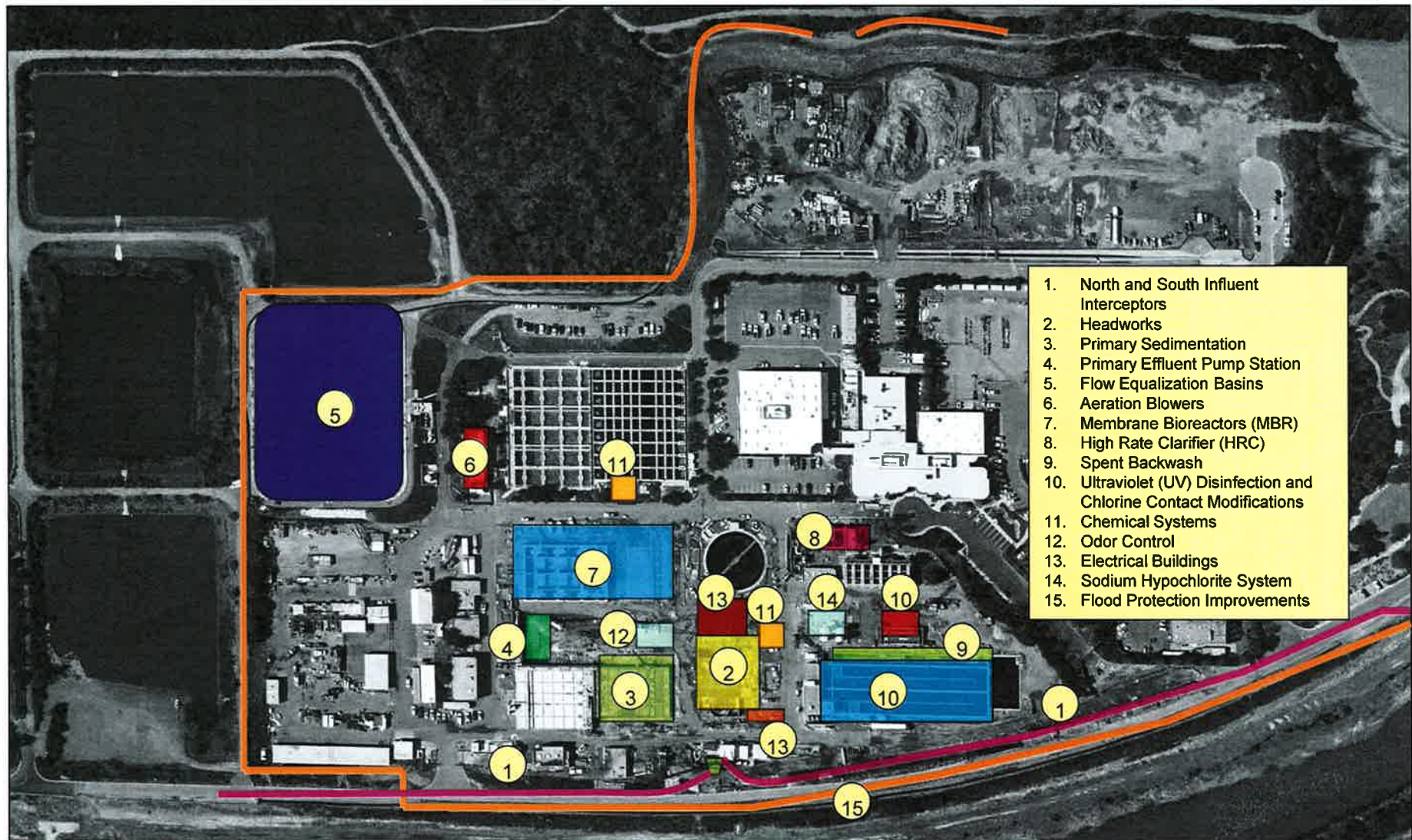
- Exhibit "A" – Location Map
- Exhibit "B" – Variance No. 5 – HDR Engineering, Inc.
- Exhibit "C" – Variance No. 7 – Delta Systems Engineering

EXHIBIT "A"

Irvine Ranch Water District



Overview of MWRP Phase 2 Expansion





September 3, 2013

Mr. Steve Malloy
Irvine Ranch Water District
15600 Sand Canyon Avenue
Irvine, California 92618

**Subject: MWRP Phase 2 Expansion – Engineering Services During Construction
Request for Variance No. 5**

Dear Mr. Malloy:

HDR Engineering, Inc. (HDR) is requesting a variance to our scope of work to account for extended project duration, changes in original scope, and new scope items.

Per your request, we are preparing this additional scope of services as Variance No. 5 to the Michelson Water Recycling Plant (MWRP) Phase 2 Engineering Services During Construction (ESDC) contract. We have organized and listed the tasks below to follow the contract task numbering. Note that some items below reflect credits as a result of unused budget. The reductions in budget are a result of increased efficiency in completing tasks, reductions in scope, or work allocations to other similar tasks. This variance seeks to reconcile all remaining work items to arrive at a final project scope and budget based on a project completion date of March 31, 2014.

This variance request is based primarily on the extended project schedule and new work. The original contract was for 30 months. Previous change requests extended the schedule for certain tasks; however the last variance was approved in January 2011. Since then the project schedule has extended further and is projected to a total of 55 months, a time increase of 84 percent. Variance No. 5 requests a total fee of \$770,800, which increases the total fee from \$7,835,129 to \$8,605,929. The total requested fee for Variance 5 is summarized in Table 1 (next page).

See attached fee estimates to supplement the summary and descriptions below. The estimates are based on the project completion date noted above. Some tasks will be impacted should the project extend beyond the indicated completion date.

This variance request also includes additional scope associated with Gregorio Estrada (Resident Engineer) and John Walker (Senior Inspector), who are providing engineering services on both the Phase 2 Expansion, and Biosolids and Energy Recovery Facilities projects. Gregorio's and John's fees for Phase 2 have been allocated to an On-Call Services budget and are deducted from this variance request. See Budget Allocation Estimated in Exhibit A.

Table 1 – Variance No. 5 Fee Summary

| Task | Current ¹ | Variance Request No. 5 | | Revised Total |
|---|----------------------|------------------------|----------------------|---------------|
| | | Due to Schedule Delays | Not Schedule Related | |
| 1 Project Management | \$410,034 | \$21,800 | | \$431,834 |
| 2 Submittal Reviews | \$1,960,581 | | \$30,000 | \$1,990,581 |
| 3 Request For Information | \$676,348 | | (\$39,300) | \$637,048 |
| 4 Meetings/Technical Site Visits | \$220,624 | \$114,300 | | \$334,924 |
| 5 Change Orders | \$484,283 | | \$149,800 | \$634,083 |
| 6 Claims & Dispute Assistance | \$62,094 | | (\$61,900) | \$194 |
| 7 Instrumentation Progress Meetings | \$34,238 | (\$25,500) | | \$8,738 |
| 8 I&C Updates | \$33,801 | (\$25,700) | | \$8,101 |
| 9 Contractor/Vendor Meetings | \$29,255 | (\$29,300) | | (\$45) |
| 10 Start-Up Services | \$481,170 | \$413,300 | | \$894,470 |
| 11 UV Validation Testing | \$152,247 | | \$34,200 | \$186,447 |
| 12 Record Drawings/Atlas Updates | \$371,454 | | | \$371,454 |
| 13 Final Walk Through | \$59,092 | | | \$59,092 |
| 14 Project Closeout | \$25,464 | | | \$25,464 |
| 15 Field Support Services | \$785,487 | \$68,800 | | \$854,287 |
| 16 Energy Control Procedures | \$45,486 | | \$26,800 | \$72,286 |
| 17 eO&M Manual | \$226,451 | | \$88,700 | \$315,151 |
| 18 Corrosion Protection Inspections | \$56,450 | | | \$56,450 |
| 19 Structural Observations | \$69,766 | | | \$69,766 |
| 20 Additional Services - HRC Building Revisions | \$28,267 | | | \$28,267 |
| 21 SIM Review Testing Submittals | \$5,300 | \$14,000 | | \$19,300 |
| 22 SIM Testing Sequencing & Coordination | \$5,700 | (\$2,900) | | \$2,800 |
| 23 SIM Testing Observation And Reporting | \$220,200 | (\$151,000) | | \$69,200 |
| 24 SIM Project Management | \$18,600 | \$2,500 | | \$21,100 |
| 25 Additional Field Services | \$777,921 | \$74,000 | | \$851,921 |
| 26 Biosolids Project | \$0 | | | \$0 |
| 27 Strainer Design | \$25,100 | | | \$25,100 |
| 28 Senior Inspector | \$476,616 | \$305,200 | | \$781,816 |
| 29 Arc Flash - Existing Facilities | \$51,600 | | (\$43,800) | \$7,800 |
| 30 Arc Flash - Phase 2 Expansion | \$41,500 | | (\$38,900) | \$2,600 |
| 31 Permit Assistance | \$0 | | \$44,400 | \$44,400 |
| 32 Fire Master Plan | \$0 | | \$36,500 | \$36,500 |
| 33 Plant Optimization | \$0 | | \$43,800 | \$43,800 |
| 34 Biosolids Cost Model | \$0 | | \$7,100 | \$7,100 |
| 35 Methanol AQMD Permit | \$0 | | \$26,700 | \$26,700 |
| SUBTOTAL | \$7,835,129 | \$779,500 | \$304,100 | \$8,918,729 |
| Allocation of Gregorio Estrada and John Walker Estimated Fees to On-Call Services Budget | | (\$312,800) | | (\$312,800) |
| TOTAL | \$7,835,129 | \$466,700 | \$304,100 | \$8,605,929 |

Notes:

1. Current budget equals the original budget plus all authorized variances (Variances No. 1 through 4).

Task 1 – Project Management

Project Management is a continuous activity during the project and provides project oversight, workload projections, staff management, budget, scope and schedule tracking, and on-going coordination to address project management issues.

Project management activities for this project began in January 2009—shortly after project authorization in December 2008. Project completion was anticipated to be on February 28, 2012. The schedule is now extended to March 30, 2014, an increase of 25 months. After September 2012 project management activities were largely performed from the field office resulting in increased efficiency given the day-to-day interaction and coordination with IRWD staff.

The extended schedule however is projected to have an impact on project management activities, including additional project controls and contract administration. The additional fee estimate is \$21,800 and is based on projecting monthly costs after September 2012 through the anticipated end of the project. See Exhibit A, Table 1.1 for details.

Task 2 – Submittal Reviews

The project team has carefully tracked the quantities of Contractor submittals received to date, number of resubmittals, and level of effort to review and respond to each. You may recall that during the original contract negotiations, the estimated quantities of contractor submittals and resubmittals were reduced by IRWD from an estimated 823 to 712 submittals. Variance No. 4 increased the number of submittals based on the number completed through December 1, 2012 and a projection of remaining submittals; the result was a scope increase to 938 submittals and a fee increase of \$511,860, for a total task budget of \$1,960,581. This amount was based on an average cost per submittal of \$2,245. Our actual cost per submittal is averaging \$1,242.

As of August 1, 2013 HDR has reviewed 1,457 submittals and resubmittals. Our team has reviewed the Contractor's anticipated submittal log, as well as the Document Control System tracking of submittals that require revisions and resubmission. Based on our review, we are estimating an additional 146 submittals through the end of the project, or 665 additional submittals beyond our current scope. Table 2.2 in Exhibit A summarizes the anticipated additional submittals on a "per discipline" basis.

The engineering team has been able to manage and reduce the review time, resulting in a reduced cost per submittal as noted above. As a result, we estimate that we can perform the increased scope with a modest increase in budget of \$30,000. See Exhibit A, Tables 2.1 and 2.2 for details. The total estimated number of submittals through the end of the project is an increase of 891 submittals and resubmittals relative to the original scope, representing an increase in scope of 125 percent. The final fee after Variance 5 represents a total increase in fee of \$541,860, or 37 percent over the original budget.

Task 3 – Requests for Information

The project team has carefully tracked the quantities of Requests for Information (RFIs) received to date and the level of effort to review and respond to each. The original scope anticipated 877 RFIs. As of August 1, 2013, HDR has received 627 RFIs. The number of RFIs received per month has a downward trend. During the last six months, HDR has received and responded to an average of 7 RFIs per month. Based on this average rate, we project an additional 56 RFIs will be received by the anticipated end of the project. Based on our average cost per RFI we anticipate the available budget will be sufficient to cover the remaining RFIs and propose a credit of \$39,300. See Exhibit A, Table 3.1 for details. The total estimated number of RFIs through the end of the project is a decrease of 194 RFIs relative to the original scope, representing a decrease in scope of 22 percent. The final fee after Variance 5 will represent a decrease in fee of \$39,300, or a 6 percent decrease to the original budget.

Task 4 – Meetings/Technical Site Visits

The original budget for this task has been exceeded by \$66,654 as a result of the project schedule extending beyond the original scope. This has had a direct impact on the number of meetings taking place, which include weekly construction meetings and coordination meetings with the Contractor, Vendors, IRWD staff, and subconsultants. The schedule has increased by 81 percent for this task. The additional fee estimate is based on the expended cost to date and a projection of those costs through the anticipated end of the project. See Exhibit A, Table 4.1 for details. The resultant Variance is for \$114,300. The additional fee represents a 52 percent increase to the original budget.

Task 5 – Change Orders

The original budget for this task has been exceeded by \$58,055 as a result of the project schedule extending beyond the original scope and higher than anticipated number of change requests. The original budget assumed 60 change order proposals; to date we have processed over 340. The majority of the change requests have been related to IRWD requests and involve changes to the original bid documents and additional scope items. The schedule has increased by 84 percent for this task. The additional fee estimate is based on the expended cost to date and a projection of those costs through the anticipated end of the project. See Exhibit A, Table 5.1 for details. The resultant variance request is for \$149,800. The additional fee represents a 31 percent increase to the original budget.

Task 6 – Claims & Dispute Assistance

This task was intended to support the IRWD CM team in claims avoidance and dispute negotiations. While work in this area has been performed, it appears that it was allocated and billed under Task 5. The expended budget to date totals \$195. Through discussions with IRWD CM staff, it is anticipated that claims will be avoided, as such we propose closing this task and

crediting the remaining budget of \$61,900. Should assistance be required to resolve claims or disputes, a separate contract or variance will be negotiated. See Exhibit A, Table 6.1 for details.

Tasks 7-10 and 21-24 – Start-Up Services

Tasks 7, 8, 9, and 10 under the original contract and Tasks 21, 22, 23, and 24 under Variance No. 1 are related to start-up and system integration management (SIM) services. The majority of the work under these tasks has been performed under Task 10, resulting in unused budget under many of the remaining tasks. Our variance request for Task 10 (see below) captures the costs associated with all remaining start-up services. As such we propose closing Tasks 7, 8, 9, 21, 22, 23, and 24, and crediting the remaining budget to Task 10.

| Start-up Services Tasks | Budget | | | |
|---|------------------|----------------------|--------------------|--------------------|
| | Original | Current ¹ | Variance Request 5 | Projected |
| 7 Instrumentation Progress Meetings | \$34,238 | \$34,238 | (\$25,500) | \$8,738 |
| 8 I&C Updates | \$33,801 | \$33,801 | (\$25,700) | \$8,101 |
| 9 Contractor/Vendor Meetings | \$29,255 | \$29,255 | (\$29,300) | (\$45) |
| 10 Start-Up Services | \$481,170 | \$481,170 | \$413,300 | \$894,470 |
| 21 SIM Review Testing Submittals | \$0 | \$5,300 | \$14,000 | \$19,300 |
| 22 SIM Testing Sequencing & Coordination | \$0 | \$5,700 | (\$2,900) | \$2,800 |
| 23 SIM Testing Observation And Reporting | \$0 | \$220,200 | (\$151,000) | \$69,200 |
| 24 SIM Project Management | \$0 | \$18,600 | \$2,500 | \$21,100 |
| Net Variance Request for Start-up Services | \$578,464 | \$828,264 | \$195,400 | \$1,023,664 |

As noted above, the majority of the work under Tasks 7-10 and 21-24 have been performed under Task 10. This variance seeks to consolidate these related scope items and associated budgets under Task 10, and provides for additional fees for work that has extended beyond the original schedule and projected to continue through March 2014.

The level of effort required to provide start-up services has been impacted by schedule delays, incomplete Contractor start-up plans, numerous meetings to address deficiencies in the systems installation, Contractor work that impacted start-up staff's ability to begin testing, and testing delays that extended the testing period beyond the original schedule. Start-up work requires coordination between multiple resources and requires that start-up staff be on site during the duration of the work. Schedule delays result in start-up and CM staff inefficiencies. We have been able to mitigate some of the impacts by assigning other work to staff, but schedule delays have had significant impacts on our start-up staff time.

Based on anticipated time requirements through the end of the project, the schedule impacts result in a proposed increase in fee of \$413,300 for Task 10.

This variance request seeks to consolidate these related scope items and associated budget credits and additions under Task 10, and close the remaining tasks. This includes additional fees for work that has extended beyond the original schedule and resulted in extended start-up activities. The total for additional start-up fees is \$429,800, of which is offset by credits totaling \$234,400, for a net variance request for start-up work of \$195,400. See Exhibit A, Tables 7.1, 8.1, 9.1, 10.1, 11.1, 11.2, 21.1, 22.1, 23.1, and 24.1 for details.

Task 11 – UV Validation Testing

The UV Validation scope under the original contract included protocol development, testing, bioassay lab coordination, hydraulic analysis, and draft and final reports to the California Department of Public Health (CDPH) for two operating scenarios—disinfection of filtered effluent and disinfection of Membrane Bioreactor (MBR) permeate.

Validation testing for the filtered effluent scenario was delayed and problematic due to bacterial re-growth downstream of the UV channels. This extended the time requirement by HDR staff to complete the testing. Work completed to date includes the filtered effluent scenario protocol, testing, and troubleshooting (due to bacterial regrowth and positive BacTs), correspondence with CDPH, and MBR effluent bioassay protocol. As of August 1, 2013 the available budget is \$29,641. Remaining work includes validation testing for the MBR permeate scenario and a final report to CDPH. This variance request also seeks to capture additional costs associated with testing an additional control protocol at Ozonia's request. The new control protocol, if successful, would result in reduced energy costs for IRWD.

The additional costs are partially offset by Ozonia, who is contributing \$30,000 to cover the additional control protocol testing. Under this Variance, the adjusted additional requested fee for Task 11 is therefore \$34,200. See Exhibit A, Table 11.1 for details.

Task 15 – Field Support Services

HDR provided a design team representative as the single point of contact in the field for daily project correspondence and coordination, and RFI/Submittal processing. Gregorio Estrada has served in this capacity since September 2009. The original budget was based on Gregorio remaining in the field until February 28, 2012 (30 months). The schedule is now extended to March 31, 2014, an increase of 25 months, or 84 percent. At IRWD's request, we have extended Gregorio's services with the understanding that compensation would be established under a future variance. This variance request seeks to capture incurred costs and anticipated costs through March 31, 2014. The estimated costs are mitigated somewhat by splitting his time between MWRP Phase 2 Expansion and MWRP Biosolids and Energy Recovery Facilities projects and accounts for time allocated to other tasks for the Phase 2 Expansion project.

This results in a proposed increase in fee of \$68,800 for Task 15, which represents a 9 percent increase to the original budget. See Exhibit A, Tables 15.1 and 15.2 for details. Table 15.1

provides a summary of the increased fee calculation; Table 15.2 establishes the estimated distribution of Gregorio's time between the Phase 2 and Biosolids projects for the remaining months of the Phase 2 project and estimates the additional fee based on this distribution.

Task 16 – Energy Control Procedures

The original project scope included technical assistance to IRWD for preparing the Energy Control Procedures (ECPs) for the new equipment installed under the Phase 2 Expansion Project. The ECPs establish the minimum requirements for the control of energy when maintenance or repair is performed on equipment, and is followed by plant staff to ensure that equipment is stopped and isolated from all potentially hazardous energy sources. The original scope assumed that IRWD staff would prepare the ECPs and that HDR would provide technical input, review draft ECPs, and provide comments.

At IRWD's request, HDR took the lead role in preparing the ECPs for the Phase 2 facilities and completed the draft ECPs. Remaining work includes field verification and final ECP documents. This additional effort resulted in costs exceeding the original budget by \$26,872. IRWD has also requested a separate proposal to prepare the ECPs for all existing MWRP facilities and will include the remaining work items noted above to complete the ECPs for the Phase 2 facilities.

This variance request includes additional fee to capture incurred costs of \$26,800. See Exhibit A, Table 16.1 for details.

Task 17 – eO&M Manual

The original approved scope for the eO&M Manual was limited to Phase 2 equipment and systems. However during presentations to IRWD engineering and operations staff, HDR personnel indicated that the entire plant would be incorporated into the eO&M, even though the budget and scope description did not support this. In February 2011 HDR reviewed the scope and understanding with IRWD and agreed to incorporate the entire plant into the eO&M under the approved budget based on the following assumptions:

- Documentation of existing equipment would be provided by IRWD to HDR in an electronic format so that it could be incorporated efficiently.
- The documentation would be readily available and in a format that does not require additional editing or research by HDR.

Based on this agreement, HDR proceeded to incorporate the existing plant into the eO&M. However, the information was not readily available and required HDR staff time to review hard-copy documentation to extract the needed information. During this review, it was discovered that available documentation was not up-to-date and required additional field research to develop up-to-date eO&M content. In addition, there were IRWD requests for content that was not anticipated or accounted for in the original scope. These include incorporation of ECP

documentation, the Operational Summaries developed by the Phase 2 CM Team, and the Derived Function Blocks (DFB) developed by Delta Systems for the Phase 2 systems. See Exhibit A, Tables 17.1 and 17.2 for details of the variance request estimate.

Note that the cost impacts were calculated using HDR's burdened rate, which does not include profit. HDR requests a variance for this task totaling \$88,700 to recover a portion of costs already incurred.

Task 25 – Additional Field Services

Following approval of the original contract, IRWD requested that Scott Toland provide additional field support services to augment the construction management team. This request was a result of IRWD's need to redirect Richard Mori's focus to other critical IRWD projects, who was previously programmed to be the Lead Engineer on the construction management team. The additional field support was identified and acknowledged as part of Variance No. 1, however the duration of the IRWD's need was unknown, and IRWD and HDR agreed that the effort would be tracked separately and compensation would be resolved under a future variance.

Following the first 12-month period, IRWD requested that Scott remain on the project for an additional 18 months and approved Variance No. 2 that included \$288,168 for the first 12-month period (September 1, 2009 to August 31, 2010) and \$489,753 for an additional 18-month period (September 1, 2010 to February 29, 2012). Following February 29, 2012, HDR had available budget under Variance No. 2 because a greater portion of Scott's time was spent on other project tasks. IRWD agreed that Scott would continue on the project and any additional compensation would be resolved under a future variance. Scott's involvement in the project continued through the end of 2012, resulting in an additional \$74,052 of expended budget.

HDR requests a variance for \$74,000 for Task 25 to cover costs already expended.

Task 28 – Senior Inspector

HDR provided a cost proposal for the services of John Walker as a Senior Construction Inspector from January 3, 2011 to August 31, 2012 and the work was approved through Variance No. 3. At IRWD's request, HDR extended John's services with the understanding that compensation would be established under a future variance. This variance request seeks capture incurred costs from September 1, 2012 through March 31, 2014. The estimated costs are based on shared time with the MWRP Biosolids and Energy Recovery Facilities project.

This results in a proposed increase in fee of \$305,200 for Task 28. See Exhibit A, Tables 28.1, 28.2, and 28.3 for details. Table 28.1 provides a summary of the increased fee calculation; Table 28.2 establishes the distribution of John's time between the Phase 2 and Biosolids projects for the remaining months of the Phase 2 project; and Table 28.3 establishes the rates and estimated fee for the remaining months of the Phase 2 project. During the development of this estimate, we discovered that the January 2013 through July 2013 invoices for Task 28 used the incorrect rate

for John's time. As a result, the August 2013 invoice will reflect a credit of approximately \$28,000.

Tasks 29 and 30 – Arc Flash Hazard Analysis (Existing and Phase 2 Facilities)

IRWD requested that HDR conduct an Arc Flash Hazard Analysis for the electrical equipment associated with the MWRP existing and Phase 2 facilities. This work was approved under Variance No. 4. IRWD has now contracted with Bergelectric to conduct the Arc Flash Hazard Analysis because much of the work can be performed in conjunction with the Continuity Study, which is already in Bergelectric's scope of work. HDR performed a portion of the work and this variance seeks to credit the remaining portion of the budget. HDR staff will still review the Arc Flash Hazard Analysis performed by Bergelectric, but this work is captured in the additional budget requested under Task 2 – Submittals.

This results in a proposed credit of \$82,700 for Tasks 29 and 30. See Exhibit A, Table 29.1 for details.

Task 31 – Permit Assistance

IRWD requested that HDR perform various permit-related tasks identified during construction of the Phase 2 Expansion. These tasks were performed with the understanding that a future variance covering the work would be issued. The tasks included the following:

- Finalize the Title 22 Engineering Report.
- Correspondence, coordination, and meetings with CDPH and RWQCB.
- Complete and submit AQMD permit application for existing Conventional Activated Sludge process.
- Prepare AQMD permit application for expanded Methanol facility. A separate task was subsequently opened to track this work (see Task 35).
- Prepare NPDES SWPPP draft report for Phase 2 Expansion.

The only remaining work is to finalize the SWPPP. HDR has expended \$37,523 through the end of July 2013 and requests an additional \$6,900 to complete the remaining work, for a total proposed increase in fee of \$44,400. See Exhibit A, Table 31.1 for details.

Task 32 – Fire Master Plan

IRWD requested that HDR prepare a plant Fire Master Plan (FMP) incorporating the new Phase 2 facilities. A substantial portion of the FMP was completed by December 2011 with follow-up work extending through April 2012. The FMP is now completed and this task is closed. The FMP was prepared and completed at the request of IRWD staff and HDR agreed to perform the work with the understanding that a future variance covering the work would be issued.

This results in a proposed increase in fee of \$36,500 for Task 32. See Exhibit A, Table 32.1 for details.

Task 33 – Plant Optimization

HDR recommended and IRWD requested the preparation of a treatment process model for the MWRP incorporating existing and Phase 2 processes. The model would then be used to optimize plant operation. HDR completed the process model and a draft of the Optimization report. Additional work includes workshops with Operations and Engineering personnel to determine operating scenarios and determine the most efficient distribution of flow and chemical dose based on energy, chemical use, total cost, and greenhouse gas emissions. The results of these workshops would then be captured in a final report.

This variance seeks to capture costs expended. A separate proposal will be provided to capture the optimization workshops and final report. HDR requests a variance of \$43,800 for Task 33. See Exhibit A, Table 33.1 for details.

Task 34 – Biosolids Cost Model

IRWD requested that HDR update the Biosolids cost model that was developed during the MWRP Biosolids Alternatives analysis and Site Specific Optimization. The cost model was updated to account for capital cost differences as a result of the design revisions after the PDR and some changes to operating costs. This task is now complete and this variance seeks to capture actual costs incurred.

This results in a proposed increase in fee of \$7,100 for Task 34.

Task 35 – Methanol AQMD Permit

IRWD requested that HDR evaluate methanol use in the existing Conventional Activated Sludge process and the anticipated methanol use in the new Membrane Bioreactor process to determine if a revised AQMD permit is required and if treatment is needed to meet AQMD requirements. HDR has completed a draft memorandum and is addressing IRWD comments. Remaining tasks include:

- Complete analysis of methanol use and projections. Complete final draft of memorandum.
- Determine if treatment is required to control emissions
- Specify and design treatment technology
- Complete permit application

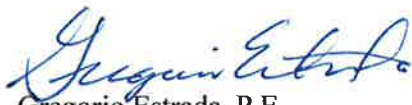
This results in a proposed increase in fee of \$26,700 for Task 35. See Exhibit A, Tables 35.1 and 35.2 for details.

Mr. Steve Malloy
September 3, 2013
Page 11

Please do not hesitate to contact either of the undersigned if you wish to discuss the proposed scope of services further.

Respectfully Submitted,

HDR ENGINEERING, INC.



Gregorio Estrada, P.E.
Project Manager



James A. Cathcart, P.E.
Senior Vice President

Attachments: Exhibit A: Estimated Level of Effort & Fee Tables

Variance 5

Exhibit A Estimated Level of Effort & Fee Tables

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
Variance 5 Fee Estimates

Task 1 - Project Management

Table 1.1

| Key | Description | Value | Units | Equation | Notes |
|-----|---------------------------------------|-----------------|-------------|-------------------------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 01/01/2009 | | | 1 |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 1,153 Days | = 38 Months | $h = c - b$ | 1 |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,915 Days | = 63 Months | $j = e - b$ | 1 |
| k. | Elapsed Time (to Reference Date): | 1,673 Days | = 55 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 66 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$410,034 | | | |
| p. | Task Budget after Approved Variances: | \$410,034 | | | 2 |
| q. | Expended through Reference Date: | \$388,486 | | | |
| r. | Remaining Budget: | \$21,548 | | $r = p - q$ | |
| s. | Average Monthly Expenditures (AME): | \$3,600 | | | 3, 5 |
| t. | Cost to Complete based on AME only: | \$28,800 | | $t = s * l$ | |
| u. | Est. cost for last month of project: | \$14,500 | | $u = (p + t) * (m / h) * 5\%$ | 4, 5 |
| v. | Task Budget Variance: | \$21,800 | | $v = t + u - r$ | 5 |
| w. | Task Budget Variance: | 5 % | | $w = v / p$ | |

Notes:

1. Project management activities began shortly after project authorization, which was in December 2008.
2. No prior variance has been requested for project management.
3. The average monthly expenditures for this task since the start date (1/1/2009) are approximately \$7,100. Since project management activities were largely performed from the field office after September 2012, the average monthly expenditures since 9/1/2012 (approximately \$3,600) was used to establish the cost to complete.
4. Estimated cost to cover additional project management effort related to project close-out. The estimate is based on a typical 5% of total Project Management fee to cover this effort adjusted for the increase in project duration.
5. Figure is rounded to nearest \$100.

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Task 2 - Submittal Reviews

Table 2.1

| Key | Description | Value | Units | Equation | Notes |
|-----|---------------------------------------|-----------------|-------------|------------------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 09/01/2009 | | | |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 910 Days | = 30 Months | $h = c - b$ | |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,672 Days | = 55 Months | $j = e - b$ | |
| k. | Elapsed Time (to Reference Date): | 1,430 Days | = 47 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 84 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$1,448,721 | | | |
| p. | Task Budget after Approved Variances: | \$1,960,581 | | | 1 |
| q. | Expended through Reference Date: | \$1,809,250 | | | |
| r. | Remaining Budget: | \$151,331 | | $r = p - q$ | |
| s. | Original Number of Submittals: | 712 | | | 2 |
| t. | Submittals after Approved Variances: | 938 | | | 2 |
| | Submittals Completed through | | | | |
| u. | Reference Date: | 1,457 | | | 2 |
| v. | Estimated Remaining Submittals: | 146 | | | 2 |
| w. | Total Estimated Submittals: | 1,603 | | $w = u + v$ | |
| x. | Average Cost per Submittal: | \$1,242 | | $x = q / u$ | |
| y. | Cost for Remaining Submittals: | \$181,332 | | $v = t * u$ | |
| z. | Task Budget Variance: | \$30,000 | | $z = y - r$ | 3 |
| aa. | Submittal Quantity Variance: | 125 % | | $aa = (w - s) / s$ | 2 |
| bb. | Task Budget Variance: | 37 % | | $bb = (p + z - o) / o$ | |

Notes:

1. Variance 4 increased budget due to an increase in the number of submittals.
2. See Table 2.2, next page.
3. Figure is rounded to nearest \$100.

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Task 2 - Submittal Reviews

Table 2.2

| | a. | b. | c. = a + b | d. | e. | f. = d + e | g. = f - c |
|---------------------|---------------------|-----------------------|-------------------------------------|---------------------------------|---------------------------------------|-----------------------------------|-----------------------------|
| Discipline | Contract Qty | Variance 4 Qty | Total Qty through Variance 4 | Completed through 7/2013 | Estimated Submittals Remaining | Total Estimated Submittals | Additional Scope Qty |
| Electrical | 72 | 32 | 104 | 130 | 6 | 136 | 32 |
| Structural | 146 | 61 | 207 | 296 | 0 | 296 | 89 |
| General, Div 1, O&M | 56 | 45 | 101 | 134 | 105 | 239 | 138 |
| Civil | 28 | 8 | 36 | 51 | 0 | 51 | 15 |
| Architectural | 59 | 10 | 69 | 84 | 0 | 84 | 15 |
| Process | 310 | 45 | 355 | 656 | 20 | 676 | 321 |
| I&C | 41 | 25 | 66 | 106 | 15 | 121 | 55 |
| Total | 712 | 226 | 938 | 1,457 | 146 | 1,603 | 665 |

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Task 3 - Requests For Information

Table 3.1

| Key | Description | Value | Units | Equation | Notes |
|-----|--|-------------------|-------------|--------------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 09/01/2009 | | | |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | 1 |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 910 Days | = 30 Months | $h = c - b$ | |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,672 Days | = 55 Months | $j = e - b$ | |
| k. | Elapsed Time (to Reference Date): | 1,430 Days | = 47 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 83.7 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$676,348 | | | |
| p. | Task Budget after Approved Variances: | \$676,348 | | | 2 |
| q. | Expended through Reference Date: | \$584,761 | | | |
| r. | Remaining Budget: | \$91,587 | | $r = p - q$ | |
| s. | Original Number of RFIs: | 877 | | | |
| u. | RFIs Completed through Reference Date: | 627 | | | |
| v. | Estimated Remaining RFIs: | 56 | | | 3 |
| w. | Total Estimated RFIs: | 683 | | $w = u + v$ | |
| x. | Average Cost per RFI: | \$933 | | $x = q / u$ | |
| y. | Cost for Remaining RFIs: | \$52,248 | | $y = x * v$ | |
| z. | Task Budget Variance: | (\$39,300) | | $z = y - r$ | 4 |
| aa. | RFI Quantity Variance: | -22 % | | $aa = (w - s) / s$ | |
| bb. | Task Budget Variance: | -6 % | | $bb = z / o$ | |

Notes:

1. The Estimated Completion Date for this task is 2 months earlier than the estimated project completion date, based on the assumption that activities during the last two months of the project do not involve new work requiring clarifications or other RFIs.
2. No prior variance has been requested for RFIs.
3. Estimated number of remaining RFIs is based on the average number of RFIs received during the previous 6 months and projecting that average rate through the anticipated end of the project.
4. Figure is rounded to nearest \$100.

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Task 4 - Meetings / Technical Site Visits

Table 4.1

| Key | Description | Value | Units | Equation | Notes |
|-----|---------------------------------------|------------------|-------------|-------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 08/01/2009 | | | |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 941 Days | = 31 Months | $h = c - b$ | |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,703 Days | = 56 Months | $j = e - b$ | |
| k. | Elapsed Time (to Reference Date): | 1,461 Days | = 48 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 81 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$220,624 | | | |
| p. | Task Budget after Approved Variances: | \$220,624 | | | 1 |
| q. | Expended through Reference Date: | \$287,278 | | | |
| r. | Remaining Budget: | (\$66,654) | | $r = p - q$ | |
| s. | Average Daily Expenditures (ADE): | \$197 | | $s = q / k$ | |
| t. | Cost to Complete based on ADE: | \$47,674 | | $t = s * l$ | |
| u. | Task Budget Variance: | \$114,300 | | $u = t - r$ | 2 |
| v. | Task Budget Variance: | 52 % | | $v = u / p$ | |

Notes:

1. No prior variance has been requested for this task.
2. Figure is rounded to nearest \$100.

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Task 5 - Change Orders

Table 5.1

| Key | Description | Value | Units | Equation | Notes |
|-----|---------------------------------------|------------------|-------------|-------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 09/01/2009 | | | |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 910 Days | = 30 Months | $h = c - b$ | |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,672 Days | = 55 Months | $j = e - b$ | |
| k. | Elapsed Time (to Reference Date): | 1,430 Days | = 47 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 84 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$484,283 | | | |
| p. | Task Budget after Approved Variances: | \$484,283 | | | 1 |
| q. | Expended through Reference Date: | \$542,338 | | | |
| r. | Remaining Budget: | (\$58,055) | | $r = p - q$ | |
| s. | Average Daily Expenditures (ADE): | \$379 | | $s = q / k$ | |
| t. | Cost to Complete based on ADE: | \$91,718 | | $t = s * l$ | |
| u. | Task Budget Variance: | \$149,800 | | $u = t - r$ | 2 |
| v. | Task Budget Variance: | 31 % | | $v = u / p$ | |

Notes:

1. No prior variance has been requested for this task
2. Figure is rounded to nearest \$100.

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Task 6 - Claims and Dispute Assistance

Table 6.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|-------------------|---------------|-------|
| a. | Original Task Budget: | \$62,094 | | |
| b. | Task Budget after Approved Variances: | \$62,094 | | |
| c. | Expended through Reference Date: | \$195 | | |
| d. | Remaining Budget: | \$61,899 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$61,900) | $f = e - d$ | 2 |

Notes:

1. Per IRWD's request, this task will be closed in anticipation that claims will be avoided. Should assistance be required to resolve claims or disputes, a separate contract will be negotiated.
2. Figure is rounded to nearest \$100.

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Task 7 - Instrumentation Progress Meetings

Table 7.1

| Key | Description | Value | Equation | Notes |
|------------|---------------------------------------|-------------------|-----------------|--------------|
| a. | Original Task Budget: | \$34,238 | | |
| b. | Task Budget after Approved Variances: | \$34,238 | | |
| c. | Expended through Reference Date: | \$8,769 | | |
| d. | Remaining Budget: | \$25,469 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$25,500) | $f = e - d$ | |

Notes:

1. We propose closing Task 7 and crediting the remaining budget. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

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Task 8 - I&C Updates

Table 8.1

| Key | Description | Value | Equation | Notes |
|------------|---------------------------------------|-------------------|-----------------|--------------|
| a. | Original Task Budget: | \$33,801 | | |
| b. | Task Budget after Approved Variances: | \$33,801 | | |
| c. | Expended through Reference Date: | \$8,133 | | |
| d. | Remaining Budget: | \$25,668 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$25,700) | $f = e - d$ | 2 |

Notes:

1. We propose closing Task 8 and crediting the remaining budget. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

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Task 9 - Contractor/Vendor Meetings

Table 9.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|-------------------|---------------|-------|
| a. | Original Task Budget: | \$29,255 | | |
| b. | Task Budget after Approved Variances: | \$29,255 | | |
| c. | Expended through Reference Date: | \$0 | | |
| d. | Remaining Budget: | \$29,255 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$29,300) | $f = e - d$ | 2 |

Notes:

1. We propose closing Task 9 and crediting the remaining budget. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

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Task 10 - Start-Up Services

Table 10.1

| TASK | | LEVEL OF EFFORT, HOURS | | | | FEE, DOLLARS | | | | |
|-----------------------|---|------------------------|------------|--------------|--------------|----------------|------------------|-----------------|----------------|------------------|
| | | PROJ MAN | SR ENGR | PROJ ENGR | PROJ ENGR | TOTAL LABOR | LABOR | TECH.CH. | ODC | TOTAL |
| NO. | DESCRIPTION | | | | | | | | | |
| | Client Billing Rates | \$192 | \$196 | \$112 | \$124 | \$134 | | | | |
| 10.1 | Start-Up Work in August 2013 | | | | | | | | | |
| 10.1.0 | Additional Scope - amount expended through 8/1/2013 | | | | | | 121,537 | 2,342 | 0 | 123,879 |
| 10.1.1 | Start-Up Lead (R. Genato) Percentage of time: 25% | | 44 | | | 44 | 8,624 | 163 | 40 | 8,827 |
| 10.1.2 | Start-Up Engr (J. Lee) Percentage of time: 100% | | | 176 | | 176 | 19,712 | 651 | 100 | 20,463 |
| 10.1.3 | Start-Up Engr (A. Nichols) Percentage of time: 75% | | | | 132 | 132 | 16,368 | 488 | 80 | 16,936 |
| 10.1.4 | Coordination and QA/QC | 4 | 18 | | | 22 | 4,296 | 81 | 20 | 4,397 |
| | Subtotal 1 | 4 | 62 | 176 | 132 | 374 | 170,537 | 3,726 | 240 | \$174,500 |
| 10.2 | Start-Up Work in September and October 2013 | | | | | | | | | |
| 10.2.1 | Start-Up Lead (R. Genato) Percentage of time: 25% | | 86 | | | 86 | 16,856 | 318 | 80 | 17,254 |
| 10.2.2 | Start-Up Engr (J. Lee) Percentage of time: 75% | | | 258 | | 258 | 28,896 | 955 | 140 | 29,991 |
| 10.2.3 | Start-Up Engr (A. Nichols) Percentage of time: 75% | | | | 258 | 258 | 31,992 | 955 | 160 | 33,107 |
| 10.2.4 | Coordination and QA/QC | 6 | 30 | | | 36 | 7,032 | 133 | 40 | 7,205 |
| | Subtotal 2 | 6 | 116 | 258 | 258 | 638 | 84,776 | 2,361 | 420 | \$87,600 |
| 10.3 | Start-Up Work in November 2013 | | | | | | | | | |
| 10.3.1 | Start-Up Lead (R. Genato) Percentage of time: 50% | | 76 | | | 76 | 14,896 | 281 | 70 | 15,247 |
| 10.3.2 | Start-Up Engr (J. Lee) Percentage of time: 100% | | | 152 | | 152 | 17,024 | 562 | 90 | 17,676 |
| 10.3.3 | Start-Up Engr (A. Nichols) Percentage of time: 75% | | | | 114 | 114 | 14,136 | 422 | 70 | 14,628 |
| 10.3.4 | Coordination and QA/QC | 3 | 17 | | | 20 | 3,908 | 74 | 20 | 4,002 |
| | Subtotal 3 | 3 | 93 | 152 | 114 | 362 | 49,964 | 1,339 | 250 | \$51,600 |
| 10.4 | Start-Up Work in December 2013 | | | | | | | | | |
| 10.4.1 | Start-Up Lead (R. Genato) Percentage of time: 25% | | 42 | | | 42 | 8,232 | 155 | 40 | 8,427 |
| 10.4.2 | Start-Up Engr (J. Lee) Percentage of time: 100% | | | 168 | | 168 | 18,816 | 622 | 90 | 19,528 |
| 10.4.3 | Start-Up Engr (A. Nichols) Percentage of time: 50% | | | | 84 | 84 | 10,416 | 311 | 50 | 10,777 |
| 10.4.4 | Coordination and QA/QC | 3 | 15 | | | 18 | 3,516 | 67 | 20 | 3,603 |
| | Subtotal 4 | 3 | 57 | 168 | 84 | 312 | 40,980 | 1,154 | 200 | \$42,300 |
| 10.5 | Start-Up Work in January 2014 | | | | | | | | | |
| 10.5.1 | Start-Up Lead (R. Genato) Percentage of time: 25% | | 44 | | | 44 | 8,624 | 163 | 40 | 8,827 |
| 10.5.2 | Start-Up Engr (J. Lee) Percentage of time: 50% | | | 88 | | 88 | 9,856 | 326 | 50 | 10,232 |
| 10.5.3 | Start-Up Engr (A. Nichols) Percentage of time: 50% | | | | 88 | 88 | 10,912 | 326 | 50 | 11,288 |
| 10.5.4 | Coordination and QA/QC | 2 | 11 | | | 13 | 2,540 | 48 | 10 | 2,598 |
| | Subtotal 5 | 2 | 55 | 88 | 88 | 233 | 31,932 | 862 | 150 | \$32,900 |
| 10.6 | Start-Up Work in February 2014 | | | | | | | | | |
| 10.6.1 | Start-Up Lead (R. Genato) Percentage of time: 25% | | 40 | | | 40 | 7,840 | 148 | 40 | 8,028 |
| 10.6.2 | Start-Up Engr (J. Lee) Percentage of time: 50% | | | 80 | | 80 | 8,960 | 296 | 40 | 9,296 |
| 10.6.3 | Start-Up Engr (A. Nichols) Percentage of time: 25% | | | | 40 | 40 | 4,960 | 148 | 20 | 5,128 |
| 10.6.4 | Coordination and QA/QC | 2 | 8 | | | 10 | 1,952 | 37 | 10 | 1,999 |
| | Subtotal 6 | 2 | 48 | 80 | 40 | 170 | 23,712 | 629 | 110 | \$24,400 |
| TOTAL, hours | | 20 | 431 | 922 | 716 | 2,089 | | | | |
| TOTAL, dollars | | | | | | | \$401,900 | \$10,100 | \$1,400 | \$413,300 |

Notes:

- Line item 10.1.0 captures the original budget overage. The original budget was \$481,170, and no prior variance was requested for this task. As of 8/1/2013 HDR has expended \$605,049, resulting in an overage of \$123,879.
- Fee estimate is based on a review of the Contractor's current schedule update, which shows start-up activities completed prior to the end of February 2014.
- Subtotal and total figures are rounded to the nearest \$100.

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Task 11 - UV Validation

Table 11.1

| TASK | | LEVEL OF EFFORT, HOURS | | | | | | FEE, DOLLARS | | | | NOTES | |
|-----------------------|---------------------------------------|------------------------|--------------|--------------|------------|--------------|---------------|----------------|---------------|--------------|---------------|---------------|-------|
| | | PROJ MAN | LEAD ENGR | PROJ ENGR | SR ENGR | PROJ ENGR | STAFF ENGR | TOTAL LABOR | LABOR | TECH.CH. | ODC | | TOTAL |
| Client Billing Rates | | \$192 | \$164 | \$156 | \$223 | \$98 | \$65 | \$131 | | | | | |
| 11.1 | IRWD Testing | | | | | | | | | | | | |
| 11.1.1 | Mobilization / Demobilization | | | 14 | 2 | | 24 | 40 | 4,190 | 148 | 126 | 4,464 | |
| 11.1.2 | On-Site Testing | | 56 | 56 | 3 | | 56 | 171 | 22,229 | 633 | 667 | 23,529 | |
| 11.1.3 | Expenses | | | | | | | 0 | 0 | 0 | 25,410 | 25,410 | |
| | Subtotal 1 | 0 | 56 | 70 | 5 | 0 | 80 | 211 | 26,419 | 781 | 26,203 | 53,400 | 2 |
| 11.2 | Ozonia Testing | | | | | | | | | | | | |
| 11.2.1 | Additional for Ozonia | | 24 | 24 | 1 | | 24 | 73 | 9,463 | 270 | 284 | 10,017 | |
| 11.2.2 | Expenses | | | | | | | 0 | 0 | 0 | 19,250 | 19,250 | |
| | Subtotal 2 | 0 | 24 | 24 | 1 | 0 | 24 | 73 | 9,463 | 270 | 19,534 | 29,300 | 2 |
| 11.3 | Testing Data Analysis - IRWD | | | | | | | | | | | | |
| 11.3.1 | Data Analysis | | 11 | 22 | 4 | 11 | | 48 | 7,206 | 178 | 216 | 7,600 | |
| | Subtotal 3 | 0 | 11 | 22 | 4 | 11 | 0 | 48 | 7,206 | 178 | 216 | 7,600 | 2 |
| 11.4 | Testing Data Analysis - Ozonia | | | | | | | | | | | | |
| 11.4.1 | Data Analysis | | 5 | 10 | 2 | 5 | | 22 | 3,316 | 81 | 99 | 3,497 | |
| | Subtotal 4 | 0 | 5 | 10 | 2 | 5 | 0 | 22 | 3,316 | 81 | 99 | 3,500 | 2 |
| TOTAL, hours | | 0 | 96 | 126 | 12 | 16 | 104 | 354 | | | | | |
| TOTAL, dollars | | | | | | | | | 46,400 | 1,300 | 46,100 | 93,800 | 2 |

Table 11.2

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|-----------|---------------|-------|
| a. | Original Task Budget: | \$152,247 | | |
| b. | Task Budget after Approved Variances: | \$152,247 | | |
| c. | Expended through Reference Date: | \$122,606 | | |
| d. | Remaining Budget: | \$29,641 | d = b - c | |
| e. | Cost to Complete: | \$93,800 | | 1 |
| f. | Ozonia Contribution: | \$30,000 | | |
| g. | Task Budget Variance: | \$34,200 | g = e - f - d | 2 |

Notes:

- See Table 11.1, above.
- Figures are rounded to nearest \$100.

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Task 15 - Field Support Services

Table 15.1

| Key | Description | Value | Units | Equation | Notes |
|-----|---------------------------------------|-----------------|-------------|-------------|-------|
| a. | Original Project Start Date: | 09/01/2009 | | | |
| b. | Task Start Date: | 09/01/2009 | | | |
| c. | Original HDR Completion Date: | 02/28/2012 | | | |
| d. | Original Contractor Completion Date: | 08/31/2012 | | | |
| e. | Estimated Completion Date: | 03/31/2014 | | | |
| f. | Variance Reference Date: | 08/01/2013 | | | |
| g. | Original HDR Project Duration: | 910 Days | = 30 Months | $g = c - a$ | |
| h. | Original HDR Task Duration: | 910 Days | = 30 Months | $h = c - b$ | |
| i. | Estimated HDR Project Duration: | 1,672 Days | = 55 Months | $i = e - a$ | |
| j. | Estimated HDR Task Duration: | 1,672 Days | = 55 Months | $j = e - b$ | |
| k. | Elapsed Time (to Reference Date): | 1,430 Days | = 47 Months | $k = f - b$ | |
| l. | Estimated Remaining Time: | 242 Days | = 8 Months | $l = f - e$ | |
| m. | Task Schedule Variance: | 762 Days | = 25 Months | $m = j - h$ | |
| n. | Task Schedule Variance: | 84 % | | $n = m / h$ | |
| o. | Original Task Budget: | \$785,487 | | | |
| p. | Task Budget after Approved Variances: | \$785,487 | | | 1 |
| q. | Expended through Reference Date: | \$746,659 | | | |
| r. | Remaining Budget: | \$38,828 | | $r = p - q$ | 2 |
| s. | Est. Fee through Completion Date: | \$107,640 | | $s = q / k$ | 3 |
| t. | Task Budget Variance: | \$68,800 | | $t = s - r$ | 4 |
| u. | Task Budget Variance: | 9 % | | $u = t / p$ | |

Notes:

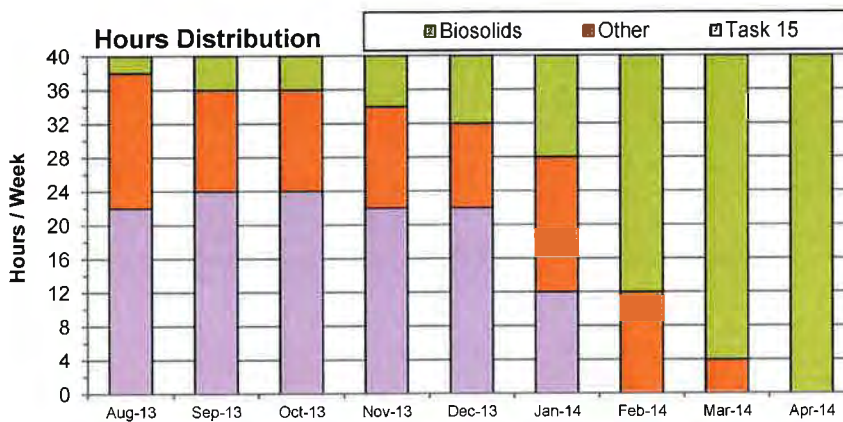
1. No prior variance has been requested for this task.
2. Remaining budget of \$38,828 after 8/1/2013, the reference date used to establish costs-to-date under this variance request.
3. See Table 15.2, next page.
4. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 15 - Field Support Services

Table 15.2

| | Phase 2 Task 15 Hrs/Wk | Other ¹ Hrs/Wk | Biosolids Hrs/Wk | Total Hrs/Wk | Phase 2 Task 15 Hours | Phase 2 Task 15 Fee ² |
|----------------|------------------------------|------------------------------|---------------------|-----------------|-----------------------------|--|
| August 2013 | 22 | 16 | 2 | 40 | 97 | \$18,915 |
| September 2013 | 24 | 12 | 4 | 40 | 101 | \$19,695 |
| October 2013 | 24 | 12 | 4 | 40 | 110 | \$21,450 |
| November 2013 | 22 | 12 | 6 | 40 | 92 | \$17,940 |
| December 2013 | 22 | 10 | 8 | 40 | 97 | \$18,915 |
| January 2014 | 12 | 16 | 12 | 40 | 55 | \$10,725 |
| February 2014 | 0 | 12 | 28 | 40 | 0 | \$0 |
| March 2014 | 0 | 4 | 36 | 40 | 0 | \$0 |
| April 2014 | 0 | 0 | 40 | 40 | 0 | \$0 |
| TOTAL | | | | | | \$107,640 |



Notes:

1. Hours under this category are associated with other Phase 2 tasks.
2. Fee based on hourly rate of \$195/hr.

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
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Task 16 - Energy Control Procedures

Table 16.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|-----------------|---------------|-------|
| a. | Original Task Budget: | \$45,486 | | |
| b. | Task Budget after Approved Variances: | \$45,486 | | |
| c. | Expended through Reference Date: | \$72,358 | | |
| d. | Remaining Budget: | (\$26,872) | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | \$26,800 | $f = e - d$ | 2 |

Notes:

- 1 We propose closing Task 16 and increasing the fee to capture costs already incurred. The remaining work items for existing and Phase 2 facilities will be captured under a separate proposal.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 17 - eO&M Manual

Table 17.1

| Key | Description | Value | Equation | Notes |
|------------------------------|---|-----------------|-----------------|-------|
| a. | Original Task Budget: | \$226,451 | | |
| b. | Task Budget after Approved Variances: | \$226,451 | | |
| c. | Expended through Reference Date: | \$258,950 | | |
| d. | Remaining Budget: | (\$32,499) | d = b - c | |
| Out-of-Scope Items | | | | |
| e1. | Out-of-Scope Items | | | |
| e2. | Develop additional figures for existing systems | \$18,200 | | 1 |
| e3. | Gather information on existing equipment | \$14,600 | | 1 |
| e4. | Develop content for existing systems | \$48,600 | | 1 |
| e5. | Incorporate Energy Control Procedures | \$5,300 | | 2 |
| e6. | Incorporate Derived Function Blocks (new equip or | \$2,000 | | 2 |
| e. | Total for out-of-scope items: | \$88,700 | e = Σ(e1 to e6) | |
| Task Budget Variance: | | | | |
| f. | Task Budget Variance: | \$88,700 | f = e | 4 |

Notes:

- From 2/25/2011 email from Scott Toland (HDR) to Steve Malloy (IRWD):
 "In reviewing our executed contract/scope, our current eO&M scope was limited to the new equipment and facilities, only. Unfortunately, we have mislead you with our earlier web maps, which indicated that the existing treatment train was included. In reviewing the "ancient history" of our scope development, it appears that the direction was to mimic the LAWRP project which was also strictly based on new equipment and processes. The scope request, development, and review/negotiations took place in parallel with the final design completion, and in retrospect, we probably should have spent more time with the District in discussing the detailed needs specific to the MWRP. With respect to the existing plant's main treatment train (PSTs, Aeration, Denitrification, secondary clarification, filter pump station, filtration, chlorine contact tank, and effluent pump station) we are aware that the District has documentation established which could be incorporated within the eO&M fairly efficiently. Assuming that HDR can obtain electronic versions of the necessary information (via pdf or MSWord), we believe that we can incorporate the existing treatment train into the eO&M within our current budget. Again, this is based on the assumption that the information is readily available and in a format that does not required additional editing or research by HDR. As we progress, we will summarize the various items needed to populate the eO&M, such that the District can provide to HDR."
 The information, however, was not readily available and required HDR staff time to review hard-copy documentation to extract the needed information. During this review, it was discovered that available documentation was not up-to-date and required additional field research to develop up-to-date eO&M content
- IRWD requested that these items be incorporated into the eO&M.
- The labor rate used in the calculation in Table 17.2 is Ed Griffenberg's burdened rate, which does not include profit.
- Figure is rounded to nearest \$100.

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
Variance 5 Fee Estimates

Task 17 - eO&M Manual

Table 17.2

| | | |
|--|-------------|--------------------|
| Develop additional figures for existing systems | | |
| Original Number of Figures | 60 | |
| Actual Number of Figures | 180 | |
| Additional Number of Figures | 120 | |
| Labor per Figure | 1 hour | |
| Labor Rate | \$152 /hour | See Note 3, above. |
| Additional Cost | \$18,200 | See Note 4, above. |
| Gather information on existing equipment | | |
| Additional Labor | 96 hours | |
| Labor Rate | \$152 /hour | See Note 3, above. |
| Additional Cost | \$14,600 | See Note 4, above. |
| Develop content for existing systems | | |
| Number of unit processes | 8 | |
| Hours per unit process | 40 hours | |
| Additional Labor | 320 hours | |
| Labor Rate | \$152 /hour | See Note 3, above. |
| Additional Cost | \$48,600 | See Note 4, above. |
| Incorporate Energy Control Procedures | | |
| Number of ECPs | 140 | |
| Hours per ECP | 0.25 hours | |
| Additional Labor | 35 hours | |
| Labor Rate | \$152 /hour | See Note 3, above. |
| Additional Cost | \$5,300 | See Note 4, above. |
| Incorporate Derived Function Blocks (new equip only) | | |
| Number of DFBs | 26 | |
| Hours per DFB | 0.5 | |
| Additional Labor | 13 hours | |
| Labor Rate | \$152 /hour | See Note 3, above. |
| Additional Cost | \$2,000 | See Note 4, above. |

Irvine Ranch Water District
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Task 21 - SIM Review Testing Submittals

Table 21.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|-----------------|---------------|-------|
| a. | Original Task Budget: | \$0 | | |
| b. | Task Budget after Approved Variances: | \$5,300 | | |
| c. | Expended through Reference Date: | \$19,371 | | |
| d. | Remaining Budget: | (\$14,071) | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | \$14,000 | $f = e - d$ | 2 |

Notes:

- 1 We propose closing Task 21 and increasing the fee to capture costs already incurred. The variance request for Tasks 2 and 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 22 - SIM Testing Sequencing & Coordination

Table 22.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|------------------|---------------|-------|
| a. | Original Task Budget: | \$0 | | |
| b. | Task Budget after Approved Variances: | \$5,700 | | |
| c. | Expended through Reference Date: | \$2,877 | | |
| d. | Remaining Budget: | \$2,823 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$2,900) | $f = e - d$ | 2 |

Notes:

- 1 We propose closing Task 22 and crediting the remaining budget. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 23 - SIM Testing Observation And Reporting

Table 23.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|--------------------|---------------|-------|
| a. | Original Task Budget: | \$0 | | |
| b. | Task Budget after Approved Variances: | \$220,200 | | |
| c. | Expended through Reference Date: | \$69,204 | | |
| d. | Remaining Budget: | \$150,996 | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | (\$151,000) | $f = e - d$ | 2 |

Notes:

- 1 We propose closing Task 23 and crediting the remaining budget. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 24 - SIM Project Management

Table 24.1

| Key | Description | Value | Equation | Notes |
|-----|---------------------------------------|----------------|---------------|-------|
| a. | Original Task Budget: | \$0 | | |
| b. | Task Budget after Approved Variances: | \$18,600 | | |
| c. | Expended through Reference Date: | \$21,153 | | |
| d. | Remaining Budget: | (\$2,553) | $d = b - c$ | |
| e. | Retain 0% of Original Task Budget | \$0 | $e = b * 0\%$ | 1 |
| f. | Task Budget Variance: | \$2,500 | $f = e - d$ | 2 |

Notes:

- 1 We propose closing Task 24 and increasing the fee to capture costs already incurred. The variance request for Task 10 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
 MWRP Phase 2 Expansion - Engineering Services During Construction
 Variance 5 Fee Estimates

Task 25 - Additional Field Services

Table 25.1

| Key | Description | Value | Equation | Notes |
|-----|----------------------------------|-----------------|-------------|-------|
| a. | Approved Task Budget: | \$777,921 | | |
| b. | Expended through Reference Date: | \$851,973 | | |
| c. | Remaining Budget: | (\$74,052) | $c = a - b$ | |
| d. | Cost to Complete: | \$0 | | 1 |
| e. | Task Budget Variance: | \$74,000 | $e = d - c$ | 2 |

Notes:

1. This work is complete. We propose closing Task 25 and capturing incurred costs.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
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Task 28 - Senior Inspector

Table 28.1

| Key | Description | Value | Equation | Notes |
|------------|--|------------------|-----------------|--------------|
| a. | Variance 3 Task Start Date: | 01/03/2011 | | |
| b. | Variance 3 Task Completion Date: | 08/31/2012 | | |
| c. | Variance 5 Reference Date: | 08/01/2013 | | |
| d. | Estimated Task Completion Date: | 01/31/2014 | | |
| e. | Variance 3 Task Budget: | \$476,616 | | |
| f. | Expended through Variance 3 Completion Date: | \$457,599 | | |
| g. | Remaining Budget after Variance 3 Completion Date: | \$19,017 | $g = e - f$ | 1 |
| h. | Expended through Variance 5 Reference Date: | \$656,688 | | |
| i. | Remaining Budget after Reference Date: | (\$180,072) | $i = e - h$ | 2 |
| j. | Est. Fee through Completion Date | \$125,171 | | 3 |
| k. | Task Budget Variance | \$305,200 | $k = j - i$ | 4 |

Notes:

1. Remaining budget of \$19,017 after 8/31/2012, the project completion date established at the time Variance 3 was approved.
2. Budget exceeded by \$180,072 after 8/1/2013, the reference date used to establish costs-to-date under this variance request.
3. See Tables 28.2 and 28.3, next page.
4. Figure is rounded to nearest \$100.

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
Variance 5 Fee Estimates

Task 28 - Senior Inspector

Table 28.2

| | Phase 2 Hrs/Wk | Biosolids Hrs/Wk | Total Hrs/Wk | Standard Rate Hours | 1.5 OT Rate Hours | 2.0 OT Rate Hours |
|----------------|-------------------|---------------------|-----------------|---------------------------|-------------------------|-------------------------|
| August 2013 | 32 | 8 | 40 | 141 | 11 | 1 |
| September 2013 | 30 | 10 | 40 | 126 | 10 | 1 |
| October 2013 | 28 | 12 | 40 | 129 | 10 | 1 |
| November 2013 | 24 | 16 | 40 | 101 | 8 | 1 |
| December 2013 | 30 | 10 | 40 | 132 | 10 | 1 |
| January 2014 | 30 | 10 | 40 | 138 | 11 | 1 |
| February 2014 | 12 | 28 | 40 | 48 | 4 | 0 |
| March 2014 | 4 | 40 | 44 | 15 | 1 | 0 |
| April 2014 | 0 | 40 | 40 | 0 | 0 | 0 |

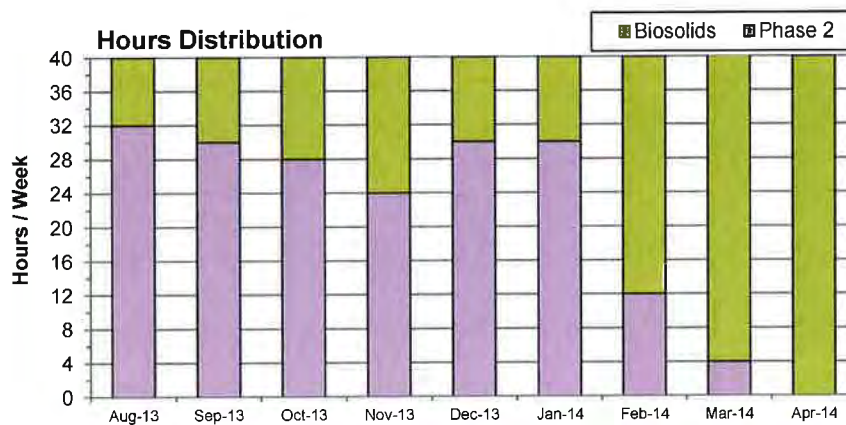


Table 28.3

| | Standard | 1.5 OT | 2.0 OT | Total |
|----------------|------------------|-----------------|----------------|------------------|
| Hourly Rates | \$135 | \$181 | \$226 | - |
| August 2013 | \$19,035 | \$1,991 | \$226 | \$21,252 |
| September 2013 | \$17,010 | \$1,810 | \$226 | \$19,046 |
| October 2013 | \$17,415 | \$1,810 | \$226 | \$19,451 |
| November 2013 | \$13,635 | \$1,448 | \$226 | \$15,309 |
| December 2013 | \$17,820 | \$1,810 | \$226 | \$19,856 |
| January 2014 | \$18,630 | \$1,991 | \$226 | \$20,847 |
| February 2014 | \$6,480 | \$724 | \$0 | \$7,204 |
| March 2014 | \$2,025 | \$181 | \$0 | \$2,206 |
| TOTALS | \$112,050 | \$11,765 | \$1,356 | \$125,171 |

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
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Tasks 29 and 30 - Arc Flash Hazard Analysis

Table 29.1

| Key | Description | Value | Equation | Notes |
|-----|---|-------------------|---------------|-------|
| a. | Task 29 Approved Budget: | \$51,600 | | |
| b. | Task 29 Expended through Ref Date: | \$7,761 | | |
| c. | Task 29 Remaining Budget: | \$43,839 | $c = a - b$ | |
| d. | Retain 0% of Task 29 Budget | \$0 | $d = a * 0\%$ | 1 |
| e | Task 29 Budget Variance: | (\$43,800) | $e = d - c$ | 2 |
| f. | Task 30 Approved Budget: | \$41,500 | | |
| g. | Task 30 Expended through Ref Date: | \$2,615 | | |
| h. | Task 30 Remaining Budget: | \$38,885 | $h = f - g$ | |
| i. | Retain 0% of Task 30 Budget | \$0 | $i = f * 0\%$ | 1 |
| j. | Task 30 Budget Variance: | (\$38,900) | $j = i - h$ | 2 |
| k. | Tasks 29 and 30 Budget Variance: | (\$82,700) | $k = e + j$ | 2 |

Notes:

1. We propose closing Tasks 29 and 30 and crediting the remaining budget. The variance request for Task 2 captures the remaining cost for this work.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 31 - Permit Assistance

Table 31.1

| TASK | | LEVEL OF EFFORT, HOURS | | | | | FEE, DOLLARS | | | | |
|-----------------------|--------------------------------------|------------------------|--------------|--------------|-------------|----------------|----------------|--------------|------------|------------|--------------|
| | | PROJ MAN | LEAD ENGR | PROJ ENGR | CAD TECH | ADMIN ASSIS | TOTAL LABOR | LABOR | TECH.CH. | ODC | TOTAL |
| Client Billing Rates | | \$175 | \$164 | \$116 | \$165 | \$132 | \$133 | | | | |
| 31.1 | Revisions to SWPPP Document | | | | | | | | | | |
| 31.1.1 | Revisions to SWPPP Document | 1 | 2 | 12 | | 2 | 17 | 2,159 | 63 | 65 | 2,287 |
| 31.1.2 | Revisions to Figure 2 | | | 8 | 8 | | 16 | 2,248 | 59 | 67 | 2,375 |
| | Subtotal 1 | 1 | 2 | 20 | 8 | 2 | 33 | 4,407 | 122 | 132 | 4,700 |
| 31.2 | Coordination with IRWD Staff | | | | | | | | | | |
| 31.2.1 | Coordination with IRWD Staff | | 2 | 4 | | | 6 | 792 | 22 | 24 | 838 |
| 31.2.2 | Prepare handout materials and agenda | | 1 | 2 | | | 3 | 396 | 11 | 12 | 419 |
| 31.2.3 | Attend one (1) meeting | | 2 | 2 | | | 4 | 560 | 15 | 17 | 592 |
| 31.2.4 | Prepare meeting minutes | | | 2 | | 1 | 3 | 364 | 11 | 11 | 386 |
| | Subtotal 2 | 0 | 5 | 10 | 0 | 1 | 16 | 2,112 | 59 | 63 | 2,200 |
| TOTAL, hours | | 1 | 7 | 30 | 8 | 3 | 49 | | | | |
| TOTAL, dollars | | | | | | | | 6,519 | 181 | 196 | 6,900 |

Table 31.2

| Key | Description | Value | Equation | Notes |
|-----|----------------------------------|-----------------|-----------|-------|
| a. | Approved Task Budget: | \$0.00 | | |
| b. | Expended through Reference Date: | \$37,523 | | |
| c. | Remaining Budget: | (\$37,523) | c = a - b | |
| d. | Cost to Complete: | \$6,900 | | 1 |
| e. | Task Budget Variance: | \$44,400 | e = d - c | 2 |

Notes:

1. See Table 31.1, above.
2. Subtotal and total figures are rounded to the nearest \$100.

Irvine Ranch Water District
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Task 32 - Fire Master Plan

Table 32.1

| Key | Description | Value | Equation | Notes |
|------------|----------------------------------|-----------------|-----------------|--------------|
| a. | Approved Task Budget: | \$0 | | |
| b. | Expended through Reference Date: | \$36,518 | | |
| c. | Remaining Budget: | (\$36,518) | $c = a - b$ | |
| d. | Cost to Complete: | \$0 | | 1 |
| e. | Task Budget Variance: | \$36,500 | $e = d - c$ | 2 |

Notes:

1. This work is complete. We propose closing Task 32 and capturing incurred costs.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 33 - Plant Optimization

Table 33.1

| Key | Description | Value | Equation | Notes |
|-----|----------------------------------|-----------------|-------------|-------|
| a. | Approved Task Budget: | \$0.00 | | |
| b. | Expended through Reference Date: | \$43,811 | | |
| c. | Remaining Budget: | (\$43,811) | $c = a - b$ | |
| d. | Cost to Complete: | \$0.00 | | 1 |
| e. | Task Budget Variance: | \$43,800 | $e = d - c$ | 2 |

Notes:

1. The process model and draft report is complete. We propose closing Task 33 and capturing incurred costs. A separate proposal covering the optimization workshops and final report will be provided for IRWD consideration.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
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Task 34 - Biosolids Cost Model

Table 34.1

| Key | Description | Value | Equation | Notes |
|------------|----------------------------------|----------------|-----------------|--------------|
| a. | Approved Task Budget: | \$0 | | |
| b. | Expended through Reference Date: | \$7,104 | | |
| c. | Remaining Budget: | (\$7,104) | $c = a - b$ | |
| d. | Cost to Complete: | \$0 | | 1 |
| e. | Task Budget Variance: | \$7,100 | $e = d - c$ | 2 |

Notes:

1. This work is complete. We propose closing Task 34 and capturing incurred costs.
2. Figure is rounded to nearest \$100.

Irvine Ranch Water District
MWRP Phase 2 Expansion - Engineering Services During Construction
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Task 35 - Methanol AQMD Permit

Table 35.1

| TASK | | LEVEL OF EFFORT, HOURS | | | | | FEE, DOLLARS | | | | |
|-----------------------|--|------------------------|--------------|--------------|-------------|----------------|----------------|---------------|------------|------------|---------------|
| | | PROJ MAN | LEAD ENGR | PROJ ENGR | CAD TECH | ADMIN ASSIS | TOTAL LABOR | LABOR | TECH.CH. | ODC | TOTAL |
| Client Billing Rates | | \$192 | \$164 | \$116 | \$165 | \$132 | \$139 | | | | |
| 35.1 | Complete AQMD Permit to Operate Application | | | | | | | | | | |
| 35.1.1 | Draft Permit Application | | 1 | 12 | | | 13 | 1,556 | 48 | 47 | 1,651 |
| 35.1.2 | Final Permit Application | | | 3 | | 1 | 4 | 480 | 15 | 14 | 509 |
| 35.1.3 | Submittal Cover Letter | | 1 | 1 | | 1 | 3 | 412 | 11 | 12 | 435 |
| 35.1.4 | | | | | | | 0 | 0 | 0 | | 0 |
| | Subtotal 1 | 0 | 2 | 16 | 0 | 2 | 20 | 2,448 | 74 | 73 | 2,600 |
| 35.2 | Coordination with IRWD and AQMD Staff | | | | | | | | | | |
| 35.2.1 | Coordination with IRWD and AQMD Staff | | 2 | 4 | | | 6 | 792 | 22 | 24 | 838 |
| 35.2.2 | Prepare handout materials and agenda | | 1 | 2 | | | 3 | 396 | 11 | 12 | 419 |
| 35.2.3 | Attend one (1) regulatory meeting | | 2 | 2 | | | 4 | 560 | 15 | 17 | 592 |
| 35.2.4 | Prepare meeting minutes | | | 2 | | 1 | 3 | 364 | 11 | 11 | 386 |
| | Subtotal 2 | 0 | 5 | 10 | 0 | 1 | 16 | 2,112 | 59 | 63 | 2,200 |
| 35.3 | Design Drawings for Canister Installation | | | | | | | | | | |
| 35.3.1 | Mechanical Drawings (1) | 2 | 1 | 8 | 20 | | 31 | 4,776 | 115 | 143 | 5,034 |
| 35.3.2 | Site Layout Showing Location for Permit | | 1 | 2 | 4 | | 7 | 1,056 | 26 | 32 | 1,114 |
| 35.3.3 | Figure Required for Permit | | 1 | 2 | 4 | | 7 | 1,056 | 26 | 32 | 1,114 |
| | Subtotal 3 | 2 | 3 | 12 | 28 | 0 | 45 | 6,888 | 167 | 207 | 7,300 |
| 35.4 | Specification for Canister & Cost Opinion | | | | | | | | | | |
| 35.4.1 | Specification Preparation | 1 | 2 | 4 | | | 7 | 984 | 26 | 30 | 1,039 |
| 35.4.2 | Equipment and Media Investigation | | 2 | 8 | | | 10 | 1,256 | 37 | 38 | 1,331 |
| 35.4.3 | Cost Evaluation and Recommendation | 1 | 2 | 8 | | | 11 | 1,448 | 41 | 43 | 1,532 |
| | Subtotal 4 | 2 | 6 | 20 | 0 | 0 | 28 | 3,688 | 104 | 111 | 3,900 |
| TOTAL, hours | | 4 | 16 | 58 | 28 | 3 | 109 | | | | |
| TOTAL, dollars | | | | | | | | 15,136 | 403 | 454 | 16,000 |

Table 35.2

| Key | Description | Value | Equation | Notes |
|-----|----------------------------------|-----------------|-----------|-------|
| a. | Approved Task Budget: | \$0.00 | | |
| b. | Expended through Reference Date: | \$10,723 | | |
| c. | Remaining Budget: | (\$10,723) | c = a - b | |
| d. | Cost to Complete: | \$16,000 | | 1 |
| e. | Task Budget Variance: | \$26,700 | e = d - c | 2 |

Notes:

1. See Table 35.1, above.
2. Subtotal and total figures are rounded to the nearest \$100.

Irvine Ranch Water District
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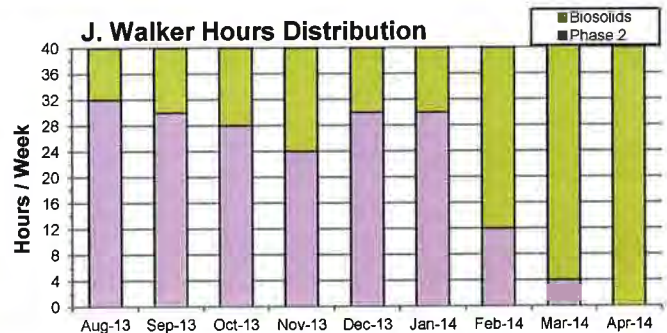
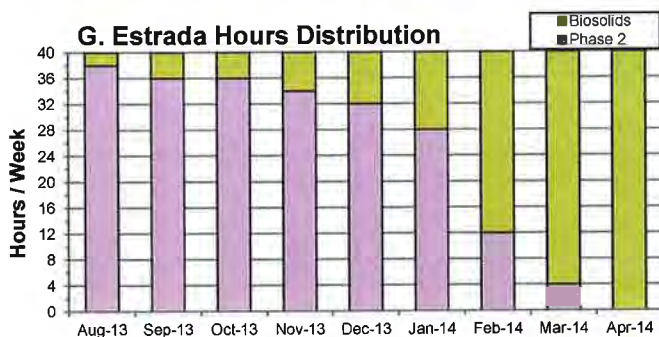
Budget Allocation for Gregorio Estrada

| | Phase 2 ¹ Hrs/Wk | Biosolids ¹ Hrs/Wk | Total Hrs/Wk | Total Phase 2 Hours | Phase 2 Fee ² |
|--|--------------------------------|----------------------------------|-----------------|---------------------------|-----------------------------|
| August 2013 | 38 | 2 | 40 | 167 | \$32,565 |
| September 2013 | 36 | 4 | 40 | 151 | \$29,445 |
| October 2013 | 36 | 4 | 40 | 166 | \$32,370 |
| November 2013 | 34 | 6 | 40 | 143 | \$27,885 |
| December 2013 | 32 | 8 | 40 | 141 | \$27,495 |
| January 2014 | 28 | 12 | 40 | 129 | \$25,155 |
| February 2014 | 12 | 28 | 40 | 48 | \$9,360 |
| March 2014 | 4 | 36 | 40 | 17 | \$3,315 |
| April 2014 | 0 | 40 | 40 | 0 | \$0 |
| TOTAL BUDGET ALLOCATION FOR GREGORIO ESTRADA: | | | | | \$187,590 |

Budget Allocation for John Walker

| | Phase 2 ¹ Hrs/Wk | Biosolids ¹ Hrs/Wk | Total Hrs/Wk | Phase 2 Std Time Hours ³ | Phase 2 1.5 OTime Hours ³ | Phase 2 2.0 OTime Hours ³ | Phase 2 Fee ⁴ |
|---|--------------------------------|----------------------------------|-----------------|---|--|--|-----------------------------|
| August 2013 | 32 | 8 | 40 | 141 | 11 | 1 | \$21,252 |
| September 2013 | 30 | 10 | 40 | 126 | 10 | 1 | \$19,046 |
| October 2013 | 28 | 12 | 40 | 129 | 10 | 1 | \$19,451 |
| November 2013 | 24 | 16 | 40 | 101 | 8 | 1 | \$15,309 |
| December 2013 | 30 | 10 | 40 | 132 | 10 | 1 | \$19,856 |
| January 2014 | 30 | 10 | 40 | 138 | 11 | 1 | \$20,847 |
| February 2014 | 12 | 28 | 40 | 48 | 4 | 0 | \$7,204 |
| March 2014 | 4 | 40 | 44 | 15 | 1 | 0 | \$2,206 |
| April 2014 | 0 | 40 | 40 | 0 | 0 | 0 | \$0 |
| TOTAL BUDGET ALLOCATION FOR JOHN WALKER: | | | | | | | \$125,171 |

TOTAL BUDGET ALLOCATION FOR GREGORIO ESTRADA AND JOHN WALKER: \$312,800⁵



Notes:

1. Weekly hours for Gregorio and John are based on distribution established in Tables 15.2 and 28.2, respectively.
2. Fee based on hourly rate of \$195/hr. See Table 15.2.
3. Monthly hours for John are based on distribution established in Table 28.2.
4. Fee based on hourly rates established in Table 28.3.
5. Figure is rounded to nearest \$100.

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: Michelson Water Reclamation Plant
Phase 2 Engineering Services
During Construction
 IRWD Project No.: 20214 and 30214
 Purchase Order No.: 117518

File No.: 007012-100808 (HDR)
 Date: September 3, 2013
 Variance No.: 5
 HDR Project No.: 007012-100808 (HDR)

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (*attach any back-up material*):
To expand HDR's scope based on the extended construction schedule, increases to established scope items, and addition of new scope items. Based on anticipated completion date of March 31, 2014.

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|------------------|----------|--------------|-----------|--------------|------------|-----------|
| Principal | 40 | \$280 | \$11,200 | | | \$11,200 |
| Project Manager | 140 | \$195 | \$27,300 | | | \$27,300 |
| Senior Engineer | 640 | \$220 | \$140,800 | | | \$140,800 |
| Project Engineer | 2,630 | \$150 | \$394,500 | | | \$394,500 |
| Staff Engineer | 1,020 | \$130 | \$132,600 | | | \$132,600 |
| Technician | 160 | \$130 | \$20,800 | | | \$20,800 |
| Administration | 80 | \$110 | \$8,800 | | | \$8,800 |
| Direct Costs | | | | \$34,800 | | \$34,800 |
| | | | | | | |
| | | | | | Total = | \$770,800 |

Schedule Impact:

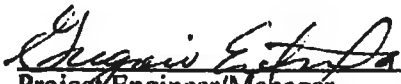
| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|------------------|-------------------|-------------------|-----------------|
| | Expanded Scope | 9/2009 – 2/2012 | +25 months | 9/2009 – 3/2014 |

Required Approval Determination:

| | | |
|--|---------------------|---|
| Total Original Contract | \$ <u>5,672,465</u> | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. |
| Previous Variances \$ | <u>2,162,664</u> | <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. |
| This Variance \$ | <u>770,800</u> | <input type="checkbox"/> Board: Single Variance greater than \$60,000. |
| Total Sum of Variances | \$ <u>2,933,464</u> | <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |
| New Contract Amount | \$ <u>8,605,929</u> | |
| Percentage of Total Variances to Original Contract | <u>51.7%</u> | |

ENGINEER/CONSULTANT: HDR Engineering, Inc.

IRVINE RANCH WATER DISTRICT


Project Engineer/Manager

9/3/2013
Date


Department Director

9/5/13
Date


Engineer's/Consultant's Management

9/3/13
Date

General Manager/Comm./Board Date



September 3, 2013

Mr. Dave Mazzearella, PE
Irvine Ranch Water District
P.O. Box 57000
Irvine, CA 92619-7000

Re: IRWD Michelson WRP Phase II Variance 7 – Revision 4

IRWD Project No.: 20214
DeltaSE Project No.: 1551.01
Proposal No.: 2013.05.2083

Dear Dave,

The final project completion date for the Michelson MWRP Phase II Expansion project has extended well over a year. In that time Delta has provided added value to the project by having full-time on-site integration staff available to support the project. Filanc's inability to responsibly schedule work activities as well as numerous false starts to support field testing has exhausted Delta's project budget. At the District's request, we are submitting the following proposal to provide a senior integrator as well as a staff integrator on-site to support the remaining SCADA development and testing.

Task 1– Provide full time staff of one senior integrator and one staff integrator to support the remaining integration and provide continuing startup and commissioning support. This work includes:

- Phase II Plant Expansion SCADA system legacy programming of existing PLCs to display the new Archestra screen format and content.
- Support updates to SCADA system documentation including Defined Function Block (DFB) Manuals and SCADA O&M Manuals. This task includes updates to documentation resulting from modifications that occur during startup testing.
- Startup assistance of the MBR, PEPS, FEB, MgOH, and UV process areas.

The coordination of startup activities will be actively management by the CM team to allow resources to be used as efficiently as possible.

The anticipated period of extended services under this variance is defined as follows:

- Sudhir Pisal (Sr. Integrator) and Tom Poonsopin (Staff Integrator) full time from July 1, 2013 through October 31, 2013.

EXHIBIT "C"

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Purpose. This procedure shall be used to identify, estimate, and report variances to the scope of work in professional services agreements between IRWD and a consulting engineer or other type of consultant. A variance may be initiated by either IRWD's Project Manager or by the Engineer/Consultant.

Variance. The Variance shall be used to identify all changes to the original scope of work, budget, and schedule for any study, design, or construction phases services.

Engineer/Consultant Initiates Variance. If a Variance is initiated by the Engineer/Consultant, the Engineer/Consultant shall prepare the Variance including the Description of Variance, the Engineering & Management Cost Impact, the Schedule Impact, and the Required Approval Determination sections. The Engineer/Consultant shall then sign the Variance and submit it to the IRWD Project Manager for action.

IRWD Initiates Variance. If a Variance is initiated by IRWD's Project Manager, the IRWD Project Manager shall complete the Description of Variance and fill-in the Total Original Contract amount and Previous Variances amount (if any). The Variance shall then be given to the Engineer/Consultant to complete the Cost Impact, the Schedule Impact, and the Required Approval Determination sections. The Engineer/Consultant shall then sign the Variance and submit it to the IRWD Project Manager for action.

Variance Processing. Once a Variance is signed and submitted by the Engineer/Consultant, the IRWD Project Manager shall:

1. Enter the Variance's details onto a Variance Register for the project,
2. Review, sign, and date the Variance, and
3. Obtain appropriate approvals.

Notice to Proceed. Work covered by a Variance may proceed upon signing by the department Director. A copy of the Variance, signed by the Director, shall be the Engineer's/Consultant's Notice to Proceed with the required work.

Contractual Authorization. Work covered by a Variance which has been signed by the Director may require final approval from the General Manager, Committee, or Board based upon the requirements of the Procurement Policy. These approvals may be obtained after the Engineer/Consultant has been given a copy of the Variance signed by the Director (the Engineer's/Consultant's Notice to Proceed). The IRWD Project Manager shall promptly thereafter prepare a memo to the General Manager, Committee and/or Board agenda items(s) for approvals as required. Once the Variance is properly approved, it modifies the existing Engineer's/Consultant's agreement.

Financial Authorization. An approved Variance may require any of the following:

1. A Capital Budget increase,
2. A new Expenditure Authorization,
3. An extension to an existing Purchase Order, and/or
4. A new Purchase Order.

It is the IRWD Project Manager's responsibility to process the necessary paperwork to grant the required financial authorization.

- Sudhir Pisal part time, approximately 65% utilization from November 1, 2013 through March 31, 2014.

| # | Tasks | Senior Integrator 3 | Integrator 9 | Admin | Total Hrs. |
|---|---|---------------------|-----------------|----------------|------------------|
| 1 | Professional staff to support on-going integration effort for MWRP Phase II Plant Expansion Project, July 1 - August 31, 2013 | 348.6 | 348.6 | 20.0 | 717.1 |
| 2 | September 1 - October 31, 2013 | 257.1 | 342.9 | 20.0 | 620.0 |
| 3 | November 1, 2013 - March 31, 2013 | 549.5 | | 50.0 | 599.5 |
| | Totals: | 1155.2 | 691.4 | 90.0 | 1936.6 |
| | Std Hourly Rates: | \$134.00 | \$125.00 | \$65.00 | |
| | Total Fees: | \$154,794 | \$86,429 | \$5,850 | \$247,073 |

Please contact me directly if you have any questions.

Sincerely,



Brian Downing, PE
President, CEO

IRVINE RANCH WATER DISTRICT PROFESSIONAL SERVICES VARIANCE

Project Title: IRWD-Michelson Water Plant Phase 2 Control System Integration

Project No.: 20214

Date: 6/27/13

Purchase Order No.:

Variance No.: 7

Originator: IRWD ENGINEER/CONSULTANT Other (Explain) _____

Description of Variance (*attach any back-up material*):

Provide professional staff to support on-going integration effort for the MWRP Phase II Plant Expansion Project.

Engineering & Management Cost Impact:

| Classification | Manhours | Billing Rate | Labor \$ | Direct Costs | Subcon. \$ | Total \$ |
|-------------------|----------|--------------|----------|--------------|------------|----------------|
| Senior Integrator | 1155.2 | 134.00 | 154,794 | | | 154,794 |
| Staff Integrator | 691.4 | 125.00 | 86,429 | | | 86,429 |
| Admin | 90.0 | 65.00 | 5,850 | | | 5,850 |
| Total \$ = | | | | | | 247,073 |

Schedule Impact:

| Task No. | Task Description | Original Schedule | Schedule Variance | New Schedule |
|----------|---------------------|-------------------|-------------------|----------------|
| 1 | PLC, HMI work, etc. | None | 38 weeks | March 31, 2014 |
| | | | | |
| | | | | |

Required Approval Determination:

| | | |
|--|----------------|---|
| Total Original Contract | \$1,131,041.13 | <input type="checkbox"/> General Manager: Single Variance less than or equal to \$30,000. |
| Previous Variances | \$278,388.00 | |
| This Variance | \$247,073.00 | <input type="checkbox"/> Committee: Single Variance greater than \$30,000, and less than or equal to \$60,000. |
| Total Sum of Variances | \$525,460.00 | |
| New Contract Amount | \$1,656,502.13 | <input type="checkbox"/> Board: Single Variance greater than \$60,000. |
| Percentage of Total Variances to Original Contract | 46.46% | <input checked="" type="checkbox"/> Board: Cumulative total of Variances greater than \$60,000, or 30% of the original contract, whichever is higher. |

ENGINEER/CONSULTANT: Delta Systems Engineering

IRVINE RANCH WATER DISTRICT

Company Name

David Downing 9/19/13
Project Engineer/Manager Date

SLM Paul J. Burt 9/19/13
Department Director Date

David Downing 9/19/13
Engineer's/Consultant's Management Date

General Manager/Comm./Board Date

IRVINE RANCH WATER DISTRICT


PROFESSIONAL SERVICES VARIANCE REGISTER

Project Title: IRWD-Michelson Water Reclamation Plant _____

Phase 2 Control System Integration _____

Project No.: 20214 _____ Project Manager: Steve Malloy _____

| Variance No. | Description | Dates | | Variance Amount |
|--------------|--|-----------|----------|-----------------|
| | | Initiated | Approved | |
| 1 | Project CR#091; Programming-out of scope & extra effort Tasks | 12/29/10 | 8/26/11 | 98,389 |
| 2 | Project Coord & QA/QC Control-Extended Contract terms | 10/18/12 | 11/29/12 | 50,000 |
| | QA/QC HMI Conversion of 3 rd party PLC's | 10/18/12 | | 20,000 |
| 3 | PLC-200 Updates | 2/5/13 | 3/22/13 | 29,084 |
| 4 | Wonderware Upgrade to Ver. 2012 | 4/16/13 | 4/17/13 | 26,928 |
| 5 | PLCs 9, 300 & 700 changes | 4/16/13 | 4/22/13 | 29,898 |
| 6 | Emergency generators, Turblex Aeration Blowers, ChemPump DFB programming | 5/22/13 | | 24,089 |
| 7 | Professional staff to support on-going integration | 6/27/13 | | 247,073 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

September 23, 2013
Prepared by: A. Murphy/M. Cortez
Submitted by: K. Burton
Approved by: Paul Cook 

ACTION CALENDAR

PORTOLA ZONE 9 AND MANNING BOOSTER PUMP STATION GENERATOR PROJECT CONSTRUCTION AWARD

SUMMARY:

The Portola Zone 9 and Manning Booster Pump Station Generator Project will construct a permanent electrical generator at each Booster Pump Station. Staff recommends that the Board:

- Authorize an increase to the FY 2013-14 Capital Budget in the amount of \$154,000, from \$293,700 to \$447,700, for the Portola Zone 9 Booster Pump Station Generator, Project 11667;
- Authorize an increase to the FY 2013-14 Capital Budget in the amount of \$5,500, from \$311,300 to \$316,800, for the Manning Booster Pump Station Generator, Project 11675;
- Approve Expenditure Authorizations in the amounts of \$379,500 and \$316,800 for Projects 11667 and 11675, respectively; and
- Authorize the General Manager to execute a construction contract with Paulus Engineering Inc. in the amount of \$518,353 for the Portola Zone 9 and Manning Booster Pump Station Generator Project.

BACKGROUND:

This project will install permanent electrical generators at the Portola Zone 9 and Manning Booster Pump Stations as shown in Exhibits "A" and "B". Both generator installations will include the construction of retaining and screen walls, reinforced concrete generator pads, and all required electrical work. Work at the Manning site will also include the construction of approximately 50 linear feet of 3-inch CML&C steel drain line and two motor operated valves to automate the discharge of off specification water from the Manning Treatment Plant. The installation of the Manning Booster Pump Station permanent generator was previously bid and awarded in June 2012 under the Santiago Canyon Area Booster Pump Station Permanent Generator Project (11476), but was removed from the scope of that project due to delays in the issuance of the United States Forest Service Special Use permit.

Construction Award:

The project was advertised on July 16, 2013 to a select list of 13 contractors. The bid opening was held September 4, 2013 with bids received from SS Mechanical, Paulus Engineering Inc. (Paulus), and Pacific Hydrotech. Paulus is the apparent low bidder with a bid amount of \$518,353. The engineer's estimate prepared by Psomas was \$436,000. Staff reviewed Paulus's bid and determined that the bid is fair and responsive. Paulus has performed well on other District projects and is currently constructing the Randall Street and Lolita Domestic Water Pipeline Replacement and the Portola Hills Sewage Lift Station Abandonment projects. The bid summary is attached as Exhibit "C".

FISCAL IMPACTS:

The Portola Zone 9 Booster Pump Station Generator Project 11667 (4146) and the Manning Booster Pump Station Generator Project 11675 (4277) are both included in the FY 2013-14 Capital Budget and covered all expenses through the design and bidding phase. Budget adjustments and Expenditure Authorizations to fund the construction and engineering support services for both projects are requested as shown in the table below and in Exhibit "D".

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|-------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 11667(4146) | \$293,700 | \$154,000 | \$447,700 | \$68,200 | \$379,500 | \$447,700 |
| 11675(4277) | \$311,300 | \$ 5,500 | \$316,800 | \$ 0 | \$316,800 | \$316,800 |
| Total | \$605,000 | \$159,500 | \$764,500 | \$68,200 | \$696,300 | \$764,500 |

ENVIRONMENTAL COMPLIANCE:

Portola Zone 9 Booster Pump Station Site:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations, Title 14, Chapter 3, Section 15301 which provides exemption for minor alterations of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. A Notice of Exemption for the project was filed on November 21, 2012.

Manning Booster Pump Station Site:

This project is subject to the National Environmental Policy Act (NEPA). In conformance with Chapter 30, Section 32.2 of the Forest Service Handbook 1909.15, the US Forest Service issued its Decision Memo to the District on August 30, 2013 and posted the memo in the Orange County Register and the Corona Press-Enterprise on September 16, 2013, indicating the project was categorically excluded from documentation in an environmental impact statement of an environmental assessment. The project was excluded per Category 3: Approval, modification or continuation of minor special uses of National Forest System lands that require less than five contiguous acres of land. The District's legal counsel review of the Decision Memo indicates that IRWD can immediately proceed with construction at the site upon U.S. Forest Service signing the Decision Memo. Staff from the U.S. Forest Service has indicated that it will issue the Special Use Permit at the earliest opportunity.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN INCREASE TO THE FY 2013-14 CAPITAL BUDGET IN THE AMOUNT OF \$154,000, FROM \$293,700 TO \$447,700, FOR THE PORTOLA ZONE 9 BOOSTER PUMP STATION GENERATOR PROJECT; AUTHORIZE AN INCREASE TO THE FY 2013-14 CAPITAL BUDGET IN THE AMOUNT OF \$5,500, FROM \$311,300 TO \$316,800, FOR THE MANNING BOOSTER PUMP STATION GENERATOR PROJECT; APPROVE EXPENDITURE AUTHORIZATIONS IN THE AMOUNTS OF \$379,500 AND \$316,800 FOR PROJECTS 11667 (4146) AND 11675 (4277), RESPECTIVELY; AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH PAULUS ENGINEERING, INC. IN THE AMOUNT OF \$518,353 FOR THE PORTOLA ZONE 9 AND MANNING BOOSTER PUMP STATION GENERATOR, PROJECTS 11667 (4146) AND 11675 (4277).

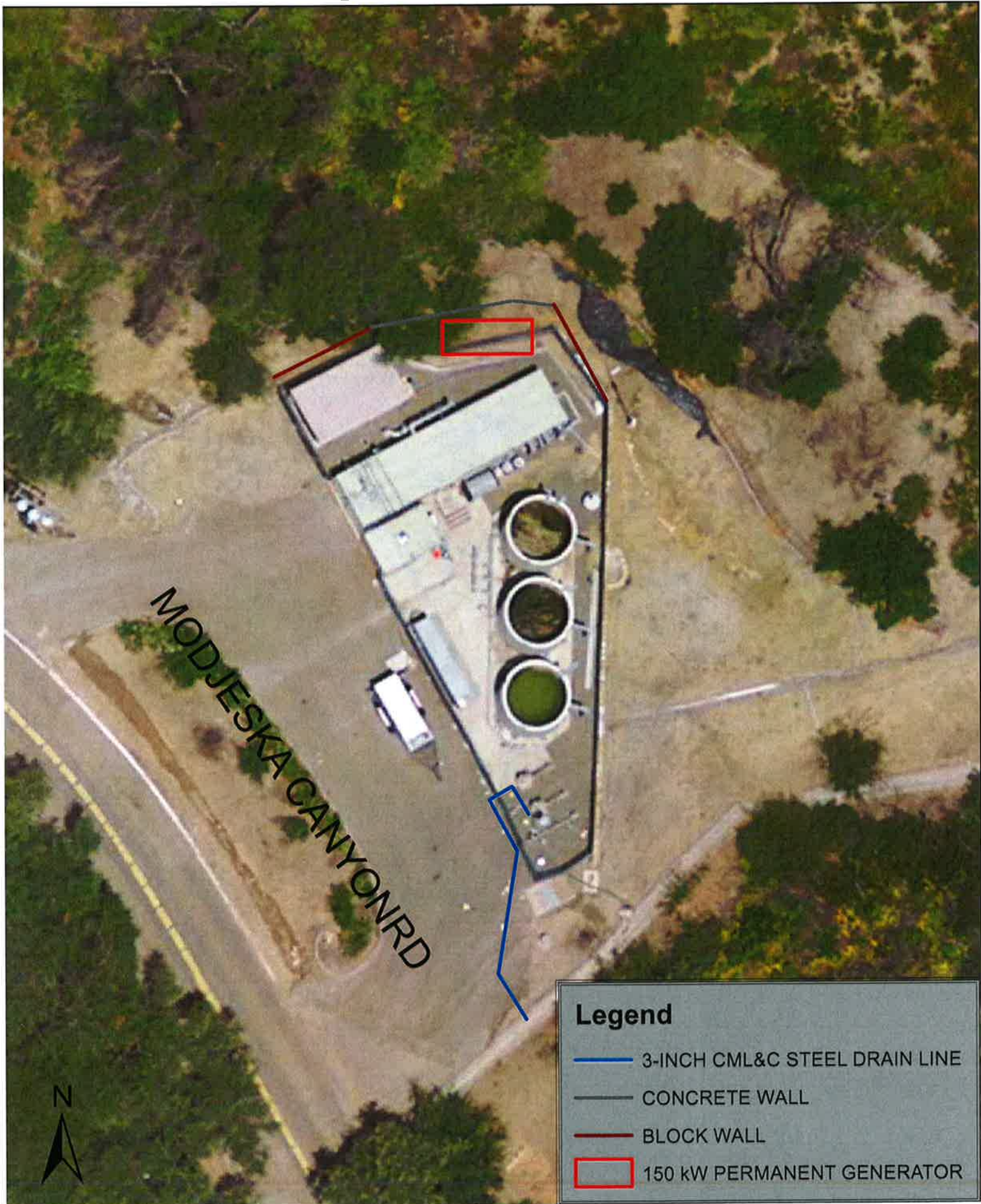
LIST OF EXHIBITS:

- Exhibit "A" – Portola Zone 9 Booster Pump Station Site Map
- Exhibit "B" – Manning Booster Pump Station Site Map
- Exhibit "C" – Bid Summary
- Exhibit "D" – Expenditure Authorizations

EXHIBIT "A": PORTOLA ZONE 9 BOOSTER PUMP STATION SITE MAP



EXHIBIT "B": MANNING BOOSTER PUMP STATION SITE MAP



| | | | | | | 1 | | 2 | | 3 | | |
|-------------------------------------|-----|------|-------|----------------------------|--------------|---------------------------------|--------------|--------------------------------|--------------|------------------------------|--------------|--------|
| | | | | Engineer's Estimate | | Paulus Engineering, Inc. | | Pacific Hydrotech Corp. | | S.S. Mechanical Corp. | | |
| | | | | | | Anaheim, CA | | Perris, CA | | Huntington Beach, CA | | |
| Item Description | | Unit | Total | Unit | Total | Unit | Total | Unit | Total | Unit | Total | |
| No. | Qty | Unit | Price | Amount | Price | Amount | Price | Amount | Price | Amount | Price | Amount |
| 1 | | 1 | LS | \$19,285 | \$19,285.00 | \$10,000.00 | \$10,000.00 | \$57,200.00 | \$57,200.00 | \$12,000.00 | \$12,000.00 | |
| | | | | | | | | | | | | |
| 2 | | 1 | LS | \$10,000 | \$10,000.00 | \$3,000.00 | \$3,000.00 | \$3,700.00 | \$3,700.00 | \$5,000.00 | \$5,000.00 | |
| 3 | | 1 | LS | \$10,000 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | |
| 4 | | 1 | LS | \$10,000 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | |
| 5 | | 1 | LS | \$6,000 | \$6,000.00 | \$4,000.00 | \$4,000.00 | \$3,000.00 | \$3,000.00 | \$5,000.00 | \$5,000.00 | |
| PORTOLA BOOSTER PUMP STATION | | | | | | | | | | | | |
| 6 | | 1 | LS | \$7,000.00 | \$7,000.00 | \$14,800.00 | \$14,800.00 | \$4,800.00 | \$4,800.00 | \$11,000.00 | \$11,000.00 | |
| 7 | | 1 | LS | \$119,000.00 | \$119,000.00 | \$135,000.00 | \$135,000.00 | \$125,600.00 | \$125,600.00 | \$222,000.00 | \$222,000.00 | |
| 8 | | 1 | LS | \$20,000.00 | \$20,000.00 | \$42,000.00 | \$42,000.00 | \$46,100.00 | \$46,100.00 | \$39,000.00 | \$39,000.00 | |
| 9 | | 1 | LS | \$20,000.00 | \$20,000.00 | \$52,000.00 | \$52,000.00 | \$51,600.00 | \$51,600.00 | \$73,000.00 | \$73,000.00 | |

| | | | | Engineer's Estimate | | 1 Paulus Engineering, Inc. Anaheim, CA | | 2 Pacific Hydrotech Corp. Perris, CA | | 3 S.S. Mechanical Corp. Huntington Beach, CA | |
|-------------------------------------|---|-----|------|---------------------|--------------|--|--------------|--|--------------|--|--------------|
| Item No. | Description | Qty | Unit | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| MANNING BOOSTER PUMP STATION | | | | | | | | | | | |
| 10 | Site demolition work including clearing, grubbing, utility protection, utility relocations, removal of existing concrete flatwork, block walls, retaining walls, landscaping, irrigation, piping, valves and appurtenances, chain link fence/gate, and electrical and communications panels at MANNING BPS. | 1 | LS | \$38,000.00 | \$38,000.00 | \$8,000.00 | \$8,000.00 | \$18,100.00 | \$18,100.00 | \$51,000.00 | \$51,000.00 |
| 11 | Install owner-furnished permanent 150kW electrical emergency generator set with diesel engine and enclosure and integral 24-hour fuel storage at MANNING BPS. | 1 | LS | \$28,000.00 | \$28,000.00 | \$12,000.00 | \$12,000.00 | \$14,200.00 | \$14,200.00 | \$7,000.00 | \$7,000.00 |
| 12 | Concrete pad foundation for generator at MANNING BPS. | 1 | LS | \$7,200.00 | \$7,200.00 | \$12,200.00 | \$12,200.00 | \$15,400.00 | \$15,400.00 | \$8,000.00 | \$8,000.00 |
| 13 | Site improvement work including masonry block wall, reinforced concrete retaining wall, and chain link fencing at MANNING BPS. | 1 | LS | \$25,000.00 | \$25,000.00 | \$32,000.00 | \$32,000.00 | \$86,000.00 | \$86,000.00 | \$56,000.00 | \$56,000.00 |
| 14 | Miscellaneous site and drainage improvement work including grading, concrete swale, drainage pit, and miscellaneous concrete and landscaping repairs at MANNING BPS. | 1 | LS | \$15,000.00 | \$15,000.00 | \$18,000.00 | \$18,000.00 | \$9,600.00 | \$9,600.00 | \$40,000.00 | \$40,000.00 |
| 15 | Furnish and Install 8" Cement mortar lined and coated (CML&C) steel pipe at MANNING BPS. | 11 | LF | \$90.00 | \$990.00 | \$1,800.00 | \$19,800.00 | \$1,958.00 | \$21,538.00 | \$2,454.55 | \$27,000.00 |
| 16 | Furnish and Install 3" and 4" Cement mortar lined and coated (CML&C) steel pipe at MANNING BPS. | 55 | LF | \$55.00 | \$3,025.00 | \$254.00 | \$13,970.00 | \$258.00 | \$14,190.00 | \$327.27 | \$18,000.00 |
| 17 | Furnish and Install 8" butterfly valve with motor operator at MANNING BPS. | 1 | EA | \$2,000.00 | \$2,000.00 | \$7,750.00 | \$7,750.00 | \$4,800.00 | \$4,800.00 | \$12,000.00 | \$12,000.00 |
| 18 | Furnish and Install 4" modulating butterfly valve with motor operator at MANNING BPS. | 1 | EA | \$2,000.00 | \$2,000.00 | \$8,600.00 | \$8,600.00 | \$4,200.00 | \$4,200.00 | \$10,000.00 | \$10,000.00 |
| 19 | Furnish and Install 3" check valve at MANNING BPS. | 1 | EA | \$500.00 | \$500.00 | \$1,000.00 | \$1,000.00 | \$700.00 | \$700.00 | \$1,200.00 | \$1,200.00 |

Bid Opening: Wednesday, September 4, 2013
at 2:00 p.m.

Exhibit "C" : Bid Summary For
Manning and Portola Booster Pump Station Generator Project
PR 11667 (4146) and 11675 (4277)

Entered By: J.K. Irey

| | | | | 1 | | 2 | | 3 | | | |
|---|--|-----|------|----------------------------|---------------------|---|---------------------|---|---------------------|---|---------------------|
| | | | | Engineer's Estimate | | Paulus Engineering, Inc. | | Pacific Hydrotech Corp. | | S.S. Mechanical Corp. | |
| | | | | | | Anaheim, CA | | Perris, CA | | Huntington Beach, CA | |
| Item | Description | Qty | Unit | Unit | Total | Unit | Total | Unit | Total | Unit | Total |
| No. | | | | Price | Amount | Price | Amount | Price | Amount | Price | Amount |
| 20 | Remove existing chemical injection vault and hatch and replace with larger 4'x6' vault and hatch at MANNING BPS. | 1 | LS | \$20,000.00 | \$20,000.00 | \$29,500.00 | \$29,500.00 | \$34,200.00 | \$34,200.00 | \$35,000.00 | \$35,000.00 |
| 21 | Remove existing hatch cover and replace with new 5'x3'-4" hatch at MANNING BPS | 1 | LS | \$8,000.00 | \$8,000.00 | \$8,500.00 | \$8,500.00 | \$10,600.00 | \$10,600.00 | \$6,000.00 | \$6,000.00 |
| 22 | Electrical work including conduits, wiring, connections, automatic transfer switch, MOV connections, and install Owner-furnished triple switch to power existing 50-HP pumps from permanent electric generator at MANNING BPS. | 1 | LS | \$65,000.00 | \$65,000.00 | \$26,233.00 | \$26,233.00 | \$21,900.00 | \$21,900.00 | \$52,000.00 | \$52,000.00 |
| Subtotal | | | | | \$436,000.00 | | \$478,353.00 | | \$567,428.00 | | \$710,200.00 |
| Adjustment (+ or -) | | | | | \$0.00 | | \$40,000.00 | | \$0.00 | | (\$11,000.00) |
| TOTAL AMOUNT OF BID | | | | | \$436,000.00 | | \$518,353.00 | | \$567,428.00 | | \$699,200.00 |
| | | | | | | Item Delivery Dates: | | Item Delivery Dates: | | Item Delivery Dates: | |
| *S.S. Mechanical - Total shown on Bid is \$699,000.00 - Actual Amount of Bid totals to \$699,200 as shown here. | | | | | | 200 kW Emergency Generator Set: 70 days | | 200 kW Emergency Generator Set: 98 days | | 200 kW Emergency Generator Set: 182 days | |
| | | | | | | Motor Actuators: 65 days | | Motor Actuators: 84 days | | Motor Actuators: 128 days | |
| | | | | | | Transfer Switch: 56 days | | Transfer Switch: 56 days | | Transfer Switch: 182 days | |
| | | | | | | Manufacturers: | | Manufacturers: | | Manufacturers: | |
| | | | | | | 200 kW Emergency Generator Set: Kohler | | 200 kW Emergency Generator Set: Kohler | | 200 kW Emergency Generator Set: Caterpillar | |
| | | | | | | Motor Actuators: Auma | | Motor Actuators: Eoroek | | Motor Actuators: Auma | |
| | | | | | | Transfer Switch: ASCO | | Transfer Switch: ASCO | | Transfer Switch: ASCO | |
| | | | | | | Subcontractors: | | Subcontractors: | | Subcontractors: | |
| | | | | | | Electrical: Vancui Electric | | Electrical: Vancin Electric | | Electrical: Halcyon Electric | |
| | | | | | | Concrete Flatwork & Wall: Hillcrest Contracting | | V-Ditch: Southwest V-Ditch | | Masonry: Winegarcher Masonary | |
| | | | | | | | | | | Coating: National Coating & Lining | |
| | | | | | | | | | | Rebar: Redbuster & Wheeler | |

EXHIBIT "D"

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: PORTOLA ZN 9 BPS PERMANENT GENERATOR2
EPMS Project No: 11667 **EA No:** 2
Oracle Project No: 4146
Project Manager: CORTEZ, MALCOLM
Project Engineer: CHO, HARRY
Request Date: September 10, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

| ID No. | Allocation % | Source of Funds |
|--------|--------------|------------------------|
| 153 | 57.9 | BONDS YET TO BE SOLD** |
| 186 | 25.2 | BONDS YET TO BE SOLD** |
| 188 | 16.9 | BONDS YET TO BE SOLD** |

Total **100.0%**

Summary of Direct Cost Authorizations

| | |
|---------------------------------------|------------------|
| Previously Approved EA Requests: | \$68,200 |
| This Request: | \$379,500 |
| Total EA Requests: | \$447,700 |
| Previously Approved Budget: | \$293,700 |
| Budget Adjustment Requested this EA: | \$154,000 |
| Updated Budget: | \$447,700 |
| Budget Remaining After This EA | \$0 |

Comments:

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|------------------|----------------------|---------------------|---------------------|------------------|------------------|-------|--------|
| ENGINEERING DESIGN - IRWD | 0 | 25,000 | 25,000 | 0 | 25,000 | 25,000 | 11/12 | 5/13 |
| ENGINEERING DESIGN - OUTSIDE | 0 | 30,000 | 30,000 | 0 | 30,000 | 30,000 | 11/12 | 5/13 |
| DESIGN STAFF FIELD SUPPORT | 0 | 5,000 | 5,000 | 0 | 5,000 | 5,000 | 11/12 | 5/13 |
| ENGINEERING - CA&I IRWD | 20,000 | 0 | 20,000 | 0 | 20,000 | 20,000 | 6/13 | 4/14 |
| ENGINEERING - CA&I OUTSIDE | 30,000 | 0 | 30,000 | 0 | 30,000 | 30,000 | 6/13 | 4/14 |
| CONSTRUCTION FIELD SUPPORT | 5,000 | 0 | 5,000 | 0 | 5,000 | 5,000 | 6/13 | 4/14 |
| CONSTRUCTION | 290,000 | 0 | 290,000 | 140,000 | 150,000 | 290,000 | 6/13 | 4/14 |
| LEGAL | 0 | 2,000 | 2,000 | 0 | 2,000 | 2,000 | 11/12 | 4/14 |
| Contingency - 10.00% Subtotal | \$34,500 | \$6,200 | \$40,700 | \$14,000 | \$26,700 | \$40,700 | | |
| Subtotal (Direct Costs) | \$379,500 | \$68,200 | \$447,700 | \$154,000 | \$293,700 | \$447,700 | | |
| Estimated G/A - 170.00% of direct labor* | \$39,500 | \$54,000 | \$93,500 | \$0 | \$93,500 | \$93,500 | | |
| Total | \$419,000 | \$122,200 | \$541,200 | \$154,000 | \$387,200 | \$541,200 | | |
| Direct Labor | \$25,000 | \$30,000 | \$55,000 | \$0 | \$55,000 | \$55,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator: _____

[Signature] 9/12/13

Department Director: _____

[Signature] 9/16/13

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$553,000 additional documents, if any, which are hereby incorporated by reference into this authorization. The intent of this authorization is to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Project Name: MANNING BPS PERMANENT GENERATOR
EPMS Project No: 11675 **EA No:** 1
Oracle Project No: 4277
Project Manager: CORTEZ, MALCOLM
Project Engineer: CHO, HARRY
Request Date: September 10, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

| ID No. | Allocation % | Source of Funds |
|--------------|---------------|------------------------|
| 153 | 100.0 | BONDS YET TO BE SOLD** |
| Total | 100.0% | |

Summary of Direct Cost Authorizations

| | |
|---------------------------------------|------------------|
| Previously Approved EA Requests: | \$0 |
| This Request: | \$316,800 |
| Total EA Requests: | \$316,800 |
| Previously Approved Budget: | \$311,300 |
| Budget Adjustment Requested this EA: | \$5,500 |
| Updated Budget: | \$316,800 |
| Budget Remaining After This EA | \$0 |

Comments:

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|------------------|----------------------|---------------------|---------------------|------------------|------------------|-------|--------|
| ENGINEERING - CA&I IRWD | 5,000 | 0 | 5,000 | 0 | 5,000 | 5,000 | 5/13 | 4/14 |
| ENGINEERING - CA&I OUTSIDE | 15,000 | 0 | 15,000 | 5,000 | 10,000 | 15,000 | 5/13 | 4/14 |
| CONSTRUCTION FIELD SUPPORT | 1,000 | 0 | 1,000 | 0 | 1,000 | 1,000 | 5/13 | 4/14 |
| CONSTRUCTION | 266,000 | 0 | 266,000 | 0 | 266,000 | 266,000 | 5/13 | 4/14 |
| LEGAL | 1,000 | 0 | 1,000 | 0 | 1,000 | 1,000 | 5/13 | 4/14 |
| Contingency - 10.00% Subtotal | \$28,800 | \$0 | \$28,800 | \$500 | \$28,300 | \$28,800 | | |
| Subtotal (Direct Costs) | \$316,800 | \$0 | \$316,800 | \$5,500 | \$311,300 | \$316,800 | | |
| Estimated G/A - 170.00% of direct labor* | \$10,200 | \$0 | \$10,200 | \$0 | \$10,200 | \$10,200 | | |
| Total | \$327,000 | \$0 | \$327,000 | \$5,500 | \$321,500 | \$327,000 | | |
| Direct Labor | \$6,000 | \$0 | \$6,000 | \$0 | \$6,000 | \$6,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.


EA Originator: _____

Department Director: _____

Finance: _____

Board/General Manager: _____

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of _____ subject is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This expenditure is made under Treasury Regulation Section 1.15 _____ 1 of official intent to reimburse costs of the above-captioned

September 23, 2013
Prepared by: A. Murphy/M. Cortez
Submitted by: K. Burton
Approved by: Paul Cook 

ACTION CALENDAR

INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE REPLACEMENT CONSTRUCTION AWARD

SUMMARY:

The Initial Disinfection Facility (IDF) Chlorine Injection Line Replacement Project will construct a new chlorine injection manhole, modify an existing 16-inch steel water main to deliver water from Wells No. 10 and 16 to the IDF, construct a new 4-inch Hastelloy C276 chlorine injection line, and construct 900 linear feet of 24-inch steel water main to convey the chlorinated water downstream from the IDF. Staff recommends that the Board:

- Authorize an increase to the FY 2013-14 Capital Budget in the amount of \$303,500, from \$1,117,300 to \$1,420,800, for Project 11669;
- Approve an Expenditure Authorization in the amount of \$1,185,500 for Project 11669; and
- Authorize the General Manager to execute a construction contract with GCI Construction, Inc. in the amount of \$1,073,250 for the Initial Disinfection Facility Chlorine Injection Line Replacement, Project 11669.

BACKGROUND:

The District's IDF is located near the intersection of Susan Street and Warner Avenue in Santa Ana as shown in Exhibit "A". The IDF has been out of service since November 26, 2012 due to a series of leaks and other failures of the existing 4-inch schedule 80 chlorinated polyvinyl chloride (CPVC) chlorine solution line. The Initial Disinfection Facility Chlorine Injection Line Replacement Project will:

- Construct a new 72-inch diameter chlorine injection manhole in the IDF parking lot,
- Modify an existing 16-inch water pipeline to convey Well 10 water to the IDF;
- Construct approximately 90 linear feet of 4-inch Hastelloy C276 injection line from the IDF to the new chlorine injection manhole; and
- Construct approximately 900 linear feet of 24-inch water pipeline to convey chlorinated water from the IDF to the existing 24-inch water main near the street intersection of South Susan Street and Warner Avenue.

These modifications will reduce the length of the chlorine solution injection pipe from approximately 900-feet to 90-feet and keep the chlorine solution injection pipe out of the public right of way, resulting improved safety and reduced cost for the District.

Construction Award:

The project was advertised on August 15, 2013 to a select list of 21 contractors. The bid opening was held September 11, 2013 with bids received from E.J. Meyer Company, GCI Construction,

Inc. (GCI), and Paulus Engineering Inc. GCI is the apparent low bidder with a bid amount of \$1,073,250. The engineer's estimate prepared by Tetra Tech was \$830,000. Since all three bids were between \$1,073,250 and \$1,211,059, the bids reflect the true cost of the job. Staff reviewed GCI's bid and determined that the bid is fair and responsive. GCI has performed well on previous projects such as the Modjeska Canyon Road Domestic Water Pipeline Relocation Project and is currently completing construction on the San Joaquin Marsh Outlet Pipe Valve Replacement Project. The bid summary is attached as Exhibit "B".

FISCAL IMPACTS:

The Initial Disinfection Facility Chlorine Injection Line Replacement Project 11669 (4285) is included in the FY 2013-14 Capital Budget. A budget adjustment and Expenditure Authorization to fund the construction and engineering support services for this project are requested as shown in the table below and in Exhibit "C".

| Project No. | Current Budget | Addition <Reduction> | Total Budget | Existing EA | This EA Request | Total EA Request |
|--------------|----------------|----------------------|--------------|-------------|-----------------|------------------|
| 11669 (4285) | \$1,117,300 | \$303,500 | \$1,420,800 | \$235,300 | \$1,185,500 | \$1,420,800 |

ENVIRONMENTAL COMPLIANCE:

This project is exempt from the California Environmental Quality Act (CEQA) as authorized under the California Code of Regulations Title 14, Chapter 3, Article 7, Section 15302, which states that replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced including but not limited to (b): replacement of a commercial structure with a new structure of substantially the same size, purpose and capacity; and (c) replacement of or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.

COMMITTEE STATUS:

Construction awards are not routinely taken to Committee prior to submittal to the Board.

RECOMMENDATION:

THAT THE BOARD AUTHORIZE AN INCREASE TO THE FY 2013-14 CAPITAL BUDGET IN THE AMOUNT OF \$303,500, FROM \$1,117,300 TO \$1,420,800 FOR PROJECT 11669 (4285); APPROVE AN EXPENDITURE AUTHORIZATION IN THE AMOUNT OF \$1,185,500 FOR PROJECT 11669 (4285); AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE A CONSTRUCTION CONTRACT WITH GCI CONSTRUCTION, INC. IN THE AMOUNT OF \$1,073,250 FOR THE INITIAL DISINFECTION FACILITY CHLORINE INJECTION LINE REPLACEMENT, PROJECT 11669 (4285).

Action Calendar: Initial Disinfection Facility Chlorine Injection Line Replacement Construction
Award
September 23, 2013
Page 3

LIST OF EXHIBITS:

Exhibit "A" – Initial Disinfection Facility Site Map
Exhibit "B" – Initial Disinfection Facility Chlorine Injection Line Replacement Bid Summary
Exhibit "C" – Expenditure Authorization

EXHIBIT A: INITIAL DISINFECTION FACILITY LOCATION MAP

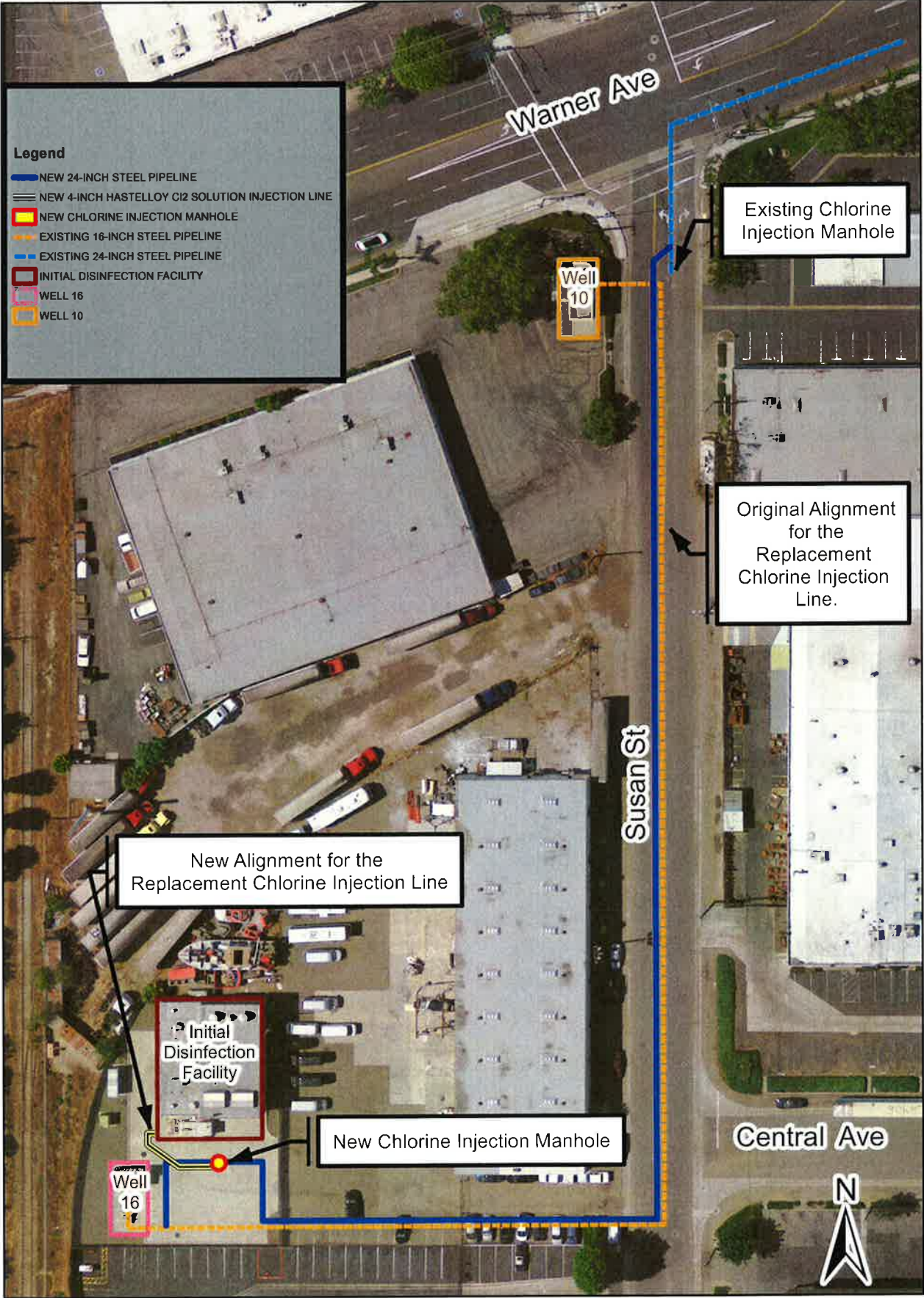


Exhibit B

Bid Opening: Wednesday, 9-11-13 @ 2 p.m.

Irvine Ranch Water District Bid Summary For
Initial Disinfection Facility Chlorine Injection line
PR 11669 (4285)

Entered By: J.K. Irey

| Item No. | Description | Qty | Unit | Engineer's Estimate | | 1 GCI Construction, Inc. Costa Mesa, CA | | 2 E.J. Meyer Company Highland, CA | | 3 Paulus Engineering, Inc. Anaheim, CA | |
|----------|--|-----|------|---------------------|--------------|---|--------------|---|--------------|--|--------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| | | | | | | | | | | | |
| 1 | Mobilization, Bonds, Permits, Demobilization, and Cleanup | 1 | LS | \$73,000.00 | \$73,000.00 | \$45,000.00 | \$45,000.00 | \$60,000.00 | \$60,000.00 | \$65,000.00 | \$65,000.00 |
| 2 | Furnish and Install 24-inch CML&C Steel Pipe | 897 | LF | \$360.00 | \$322,920.00 | \$450.00 | \$403,650.00 | \$550.00 | \$493,350.00 | \$357.00 | \$320,229.00 |
| 3 | Furnish and Install Hastelloy C-276 Pipe, Fittings, Expansion Joint, Gauge, and (Owner Supplied) Valves and Actuators within the IDF Building including wall and hanging pipe supports | 1 | LS | \$29,000.00 | \$29,000.00 | \$100,000.00 | \$100,000.00 | \$85,000.00 | \$85,000.00 | \$144,845.00 | \$144,845.00 |
| 4 | Furnish and Install 4-inch Hastelloy C-276 Piping within 8-inch Steel Split Casing | 1 | LS | \$35,000.00 | \$35,000.00 | \$50,000.00 | \$50,000.00 | \$85,000.00 | \$85,000.00 | \$128,506.00 | \$128,506.00 |
| 5 | Furnish and Install 4-inch Hastelloy C276 Piping, Fittings, (Owner Supplied) Valves and Injection Tubing within Injection Manhole | 1 | LS | \$8,000.00 | \$8,000.00 | \$50,000.00 | \$50,000.00 | \$35,000.00 | \$35,000.00 | \$29,394.00 | \$29,394.00 |
| 6 | Furnish and Install 2-inch Water Service from City of Santa Ana, including hot tap connection, saddle, meter, meter box, backflow assembly and copper piping | 1 | LS | \$29,000.00 | \$29,000.00 | \$11,300.00 | \$11,300.00 | \$25,000.00 | \$25,000.00 | \$11,355.00 | \$11,355.00 |
| 7 | Furnish and Install 2-inch Copper Pipe from Backflow Device to Connection at IDF Building | 1 | LS | \$9,000.00 | \$9,000.00 | \$15,600.00 | \$15,600.00 | \$25,000.00 | \$25,000.00 | \$26,274.00 | \$26,274.00 |
| 8 | Furnish and Install 24-inch Butterfly Valve and Valve Box | 1 | EA | \$8,500.00 | \$8,500.00 | \$12,600.00 | \$12,600.00 | \$18,000.00 | \$18,000.00 | \$20,664.00 | \$20,664.00 |
| 9 | Furnish and Install 16-inch Butterfly Valve and Valve Box | 2 | EA | \$7,000.00 | \$14,000.00 | \$9,400.00 | \$18,800.00 | \$10,000.00 | \$20,000.00 | \$8,484.00 | \$16,968.00 |
| 10 | Furnish and Install 8-inch Gate Valve and Valve Box | 1 | EA | \$4,000.00 | \$4,000.00 | \$5,500.00 | \$5,500.00 | \$4,500.00 | \$4,500.00 | \$3,477.00 | \$3,477.00 |
| 11 | Furnish and Install CP Test Stations and Insulating Flange | 1 | LS | \$7,000.00 | \$7,000.00 | \$12,400.00 | \$12,400.00 | \$17,000.00 | \$17,000.00 | \$9,432.00 | \$9,432.00 |
| 12 | Furnish and Install 2-inch Combination Air and Vacuum Release Valve Assembly | 2 | EA | \$7,000.00 | \$14,000.00 | \$13,000.00 | \$26,000.00 | \$10,000.00 | \$20,000.00 | \$7,101.00 | \$14,202.00 |
| 13 | Furnish and Install 4-inch Blow-off Assembly including valves, piping and fittings | 1 | EA | \$7,000.00 | \$7,000.00 | \$23,500.00 | \$23,500.00 | \$20,000.00 | \$20,000.00 | \$7,357.00 | \$7,357.00 |
| 14 | Furnish and Install Connection to Existing 24-inch Water Main including Removal and Disposal of existing 60-inch Injection Manhole and Isolating Existing Pipeline to Well 10. Protect existing telemetry cables and conduits. | 1 | LS | \$18,000.00 | \$18,000.00 | \$12,200.00 | \$12,200.00 | \$15,000.00 | \$15,000.00 | \$21,000.00 | \$21,000.00 |
| 15 | Furnish and Install Connection to Existing 16-inch Steel Pipeline at the IDF Site | 1 | LS | \$10,000.00 | \$10,000.00 | \$14,000.00 | \$14,000.00 | \$10,000.00 | \$10,000.00 | \$15,000.00 | \$15,000.00 |
| 16 | Furnish and Install Connection to existing 8-inch Steel Fire Service Pipeline at the IDF Site | 1 | LS | \$9,000.00 | \$9,000.00 | \$7,300.00 | \$7,300.00 | \$10,000.00 | \$10,000.00 | \$14,000.00 | \$14,000.00 |
| 17 | Furnish and Install Connection to Existing 2-inch Water Service Belowground at the IDF Site | 1 | LS | \$4,000.00 | \$4,000.00 | \$4,100.00 | \$4,100.00 | \$5,000.00 | \$5,000.00 | \$2,500.00 | \$2,500.00 |
| 18 | Remove and Relocate Existing 3-inch Copper Water Service Belowground at the IDF Site | 1 | LS | \$3,000.00 | \$3,000.00 | \$6,500.00 | \$6,500.00 | \$5,000.00 | \$5,000.00 | \$3,271.00 | \$3,271.00 |
| 19 | Perform Pipe Pressure Testing | 1 | LS | \$5,000.00 | \$5,000.00 | \$11,400.00 | \$11,400.00 | \$8,000.00 | \$8,000.00 | \$7,034.00 | \$7,034.00 |
| 20 | Furnish and Install 72-inch Injection Manhole including Electrical Components | 1 | LS | \$18,000.00 | \$18,000.00 | \$20,500.00 | \$20,500.00 | \$25,000.00 | \$25,000.00 | \$19,250.00 | \$19,250.00 |
| 21 | Furnish and Install Stainless Steel Aboveground Cabinet for Hastelloy Pipe, including concrete sump, wall attachments, and Wall Penetration | 1 | LS | \$6,000.00 | \$6,000.00 | \$4,500.00 | \$4,500.00 | \$15,000.00 | \$15,000.00 | \$11,544.00 | \$11,544.00 |

| Item No. | Description | Qty | Unit | Engineer's Estimate | | 1 GCI Construction, Inc. Costa Mesa, CA | | 2 E.J. Meyer Company Highland, CA | | 3 Paulus Engineering, Inc. Anaheim, CA | |
|----------|---|------|------|---------------------|---------------------|---|--|--|-----------------------|--|-----------------------|
| | | | | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount | Unit Price | Total Amount |
| 22 | Remove, Dispose and Abandon in place existing Leak Detection Vault adjacent to the IDF Building and the two existing Leak Detection Manholes | 1 | LS | \$12,000.00 | \$12,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$14,465.00 | \$14,465.00 |
| 23 | Abandon in Place existing 4-inch CPVC and 8-inch DIP Casing including filling with Slurry | 1 | LS | \$10,000.00 | \$10,000.00 | \$7,200.00 | \$7,200.00 | \$10,000.00 | \$10,000.00 | \$6,144.00 | \$6,144.00 |
| 24 | Furnish and Install New Telemetry Cables from Well 10 PLC to the IDF PLC including pull boxes and connections to existing. No splicing. | 1 | LS | \$12,000.00 | \$12,000.00 | \$48,000.00 | \$48,000.00 | \$30,000.00 | \$30,000.00 | \$15,850.00 | \$15,850.00 |
| 25 | Pothole Existing Connections and Crossing Utilities prior to submittal of steel pipe line lays | 1 | LS | \$20,000.00 | \$20,000.00 | \$8,800.00 | \$8,800.00 | \$15,000.00 | \$15,000.00 | \$9,800.00 | \$9,800.00 |
| 26 | Re-connect Electrical Wiring for Motor Actuators within the IDF Building | 1 | LS | \$780.00 | \$780.00 | \$6,400.00 | \$6,400.00 | \$5,000.00 | \$5,000.00 | \$5,500.00 | \$5,500.00 |
| 27 | Remove & Dispose CPVC Valves, Piping and Fittings within IDF Building | 1 | LS | \$6,000.00 | \$6,000.00 | \$4,600.00 | \$4,600.00 | \$6,000.00 | \$6,000.00 | \$5,670.00 | \$5,670.00 |
| 28 | Remove and Replace 4 foot wide Ribbon Gutter | 75 | LF | \$20.00 | \$1,500.00 | \$70.00 | \$5,250.00 | \$45.00 | \$3,375.00 | \$180.00 | \$13,500.00 |
| 29 | Remove, Dispose and Replace PCC Pavement within IDF Site | 2500 | SF | \$25.00 | \$62,500.00 | \$12.30 | \$30,750.00 | \$20.00 | \$50,000.00 | \$12.00 | \$30,000.00 |
| 30 | Furnish and Install 2-inch Grind and Cap | 1400 | SF | \$2.00 | \$2,800.00 | \$10.00 | \$14,000.00 | \$3.00 | \$4,200.00 | \$6.00 | \$8,400.00 |
| 31 | Construct Traffic Loop Detector and Wiring | 1 | LS | \$3,000.00 | \$3,000.00 | \$7,500.00 | \$7,500.00 | \$3,000.00 | \$3,000.00 | \$2,900.00 | \$2,900.00 |
| 32 | Construct Landscaping and Hardscape at various locations | 1 | LS | \$8,000.00 | \$8,000.00 | \$3,200.00 | \$3,200.00 | \$3,000.00 | \$3,000.00 | \$7,260.00 | \$7,260.00 |
| 33 | Traffic Control | 1 | LS | \$5,000.00 | \$5,000.00 | \$4,200.00 | \$4,200.00 | \$10,000.00 | \$10,000.00 | \$7,990.00 | \$7,990.00 |
| 34 | Project Dewatering per OCS D Special Purpose Discharge Permit and NPDES permit requirements | 1 | LS | \$25,000.00 | \$25,000.00 | \$50,000.00 | \$50,000.00 | \$10,000.00 | \$10,000.00 | \$7,264.00 | \$7,264.00 |
| 35 | Start-up Testing and Training | 1 | LS | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| 36 | Prepare Record Drawings | 1 | LS | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$5,000.00 |
| 37 | Furnish and install Erosion Control Measures | 1 | LS | \$9,000.00 | \$9,000.00 | \$3,000.00 | \$3,000.00 | \$1,000.00 | \$1,000.00 | \$5,000.00 | \$5,000.00 |
| 38 | Sheeting, Shoring and Bracing | 1 | LS | \$9,000.00 | \$9,000.00 | \$5,500.00 | \$5,500.00 | \$9,686.00 | \$9,686.00 | \$3,600.00 | \$3,600.00 |
| | Subtotal | | | | \$830,000.00 | | \$1,073,250.00 | | \$1,181,111.00 | | \$1,044,645.00 |
| | Adjustment (+ or -) | | | | \$0.00 | | \$0.00 | | \$0.00 | | \$166,414.00 |
| | TOTAL AMOUNT OF BID | | | | \$830,000.00 | | \$1,073,250.00 | | \$1,181,111.00 | | \$1,211,059.00 |
| | | | | | | Item Delivery Dates: | Item Delivery Dates: | Item Delivery Dates: | | | |
| | GCI - Bid calls out a total of \$1,024,350 in their bid, but Item Costs total to \$1,073,250 as shown here for a difference of \$48,900. This error does not impact the outcome of the bid - GCI remains apparent Low Bidder. | | | | | Hastelloy C-276 Pipe and Fittings: 10 weeks | Hastelloy C-276 Pipe and Fittings: 30 days | Hastelloy C-276 Pipe and Fittings: 75 days | | | |
| | | | | | | CML&C Steel Pipe and Fittings: 6-8 weeks | CML&C Steel Pipe and Fittings: 60 days | CML&C Steel Pipe and Fittings: 70 days | | | |
| | | | | | | Butterfly Valves: 10 weeks | Butterfly Valves: 60 days | Butterfly Valves: 112 days | | | |
| | | | | | | Manufacturers: | Manufacturers: | Manufacturers: | | | |
| | | | | | | Hastelloy C-276 Pipe and Fittings: Hastelloy | Hastelloy C-276 Pipe and Fittings: GFI Stainless | Hastelloy C-276 Pipe and Fittings: Duhig | | | |
| | | | | | | CML&C Steel Pipe and Fittings: Southland Pipe | CML&C Steel Pipe and Fittings: West Coast Pipe | CML&C Steel Pipe and Fittings: Southland | | | |
| | | | | | | Butterfly Valves: Mueller | Butterfly Valves: Mueller | Butterfly Valves: K-Flow | | | |
| | | | | | | Subcontractors: | Subcontractors: | Subcontractors: | | | |
| | | | | | | Electrical: Vanciu Electric | Electrical: Halcyon Electric | Electrical: Vanciu Electric | | | |
| | | | | | | Concrete: Diamond Structures | Final Paving: All American Asphalt | | | | |
| | | | | | | Asphalt: Hardy & Harper Inc. | Hastelloy Installation: RC Foster | | | | |

IRVINE RANCH WATER DISTRICT

Expenditure Authorization

Exhibit C

Project Name: IDF CHLORINE INJECTION LINE REPLACEMENT
 EPMS Project No: 11669 EA No: 3
 Oracle Project No: 4285
 Project Manager: CORTEZ, MALCOLM
 Project Engineer: MURPHY, ALEXANDER
 Request Date: September 12, 2013

ID Split: Miscellaneous

Improvement District (ID) Allocations

| ID No. | Allocation % | Source of Funds |
|--------------|---------------|--------------------|
| 101 | 100.0 | REPLACEMENT FUND** |
| Total | 100.0% | |

Summary of Direct Cost Authorizations


| | |
|---------------------------------------|--------------------|
| Previously Approved EA Requests: | \$235,300 |
| This Request: | \$1,185,500 |
| Total EA Requests: | \$1,420,800 |
| Previously Approved Budget: | \$1,117,300 |
| Budget Adjustment Requested this EA: | \$303,500 |
| Updated Budget: | \$1,420,800 |
| Budget Remaining After This EA | \$0 |

Comments:

| Phase | This EA Request | Previous EA Requests | EA Requests to Date | This Budget Request | Previous Budget | Updated Budget | Start | Finish |
|--|--------------------|----------------------|---------------------|---------------------|--------------------|--------------------|-------|--------|
| ENGINEERING DESIGN - IRWD | 0 | 20,000 | 20,000 | 0 | 20,000 | 20,000 | 1/13 | 8/13 |
| ENGINEERING DESIGN - OUTSIDE | 44,000 | 56,000 | 100,000 | 44,000 | 56,000 | 100,000 | 1/13 | 8/13 |
| DESIGN STAFF FIELD SUPPORT | 0 | 1,000 | 1,000 | 0 | 1,000 | 1,000 | 1/13 | 8/13 |
| ENGINEERING - CA&I IRWD | 20,000 | 0 | 20,000 | 0 | 20,000 | 20,000 | 9/13 | 4/14 |
| ENGINEERING - CA&I OUTSIDE | 65,000 | 0 | 65,000 | 55,000 | 10,000 | 65,000 | 9/13 | 4/14 |
| CONSTRUCTION FIELD SUPPORT | 5,000 | 0 | 5,000 | 0 | 5,000 | 5,000 | 9/13 | 4/14 |
| CONSTRUCTION | 995,000 | 145,000 | 1,140,000 | 190,000 | 950,000 | 1,140,000 | 9/13 | 4/14 |
| LEGAL | 0 | 2,000 | 2,000 | 0 | 2,000 | 2,000 | 9/13 | 4/14 |
| Contingency - 5.00% Subtotal | \$56,500 | \$11,300 | \$67,800 | \$14,500 | \$53,300 | \$67,800 | | |
| Subtotal (Direct Costs) | \$1,185,500 | \$235,300 | \$1,420,800 | \$303,500 | \$1,117,300 | \$1,420,800 | | |
| Estimated G/A - 170.00% of direct labor* | \$40,400 | \$37,800 | \$78,200 | \$0 | \$78,200 | \$78,200 | | |
| Total | \$1,225,900 | \$273,100 | \$1,499,000 | \$303,500 | \$1,195,500 | \$1,499,000 | | |
| Direct Labor | \$25,000 | \$21,000 | \$46,000 | \$0 | \$46,000 | \$46,000 | | |

*EA includes estimated G&A. Actual G&A will be applied based on the current ratio of direct labor to general and administrative costs.

EA Originator:

 9/12/13

Department Director:

 9/16/13

Finance:

Board/General Manager:

** IRWD hereby declares that it reasonably expects those expenditures marked with two asterisks to be reimbursed with proceeds of future debt to be incurred by IRWD in a maximum principal amount of \$1,529,000. The above-captioned project is further described in the attached staff report and additional documents, if any, which are hereby incorporated by reference. This declaration of official intent to reimburse costs of the above-captioned project is made under Treasury Regulation Section 1.150-2.